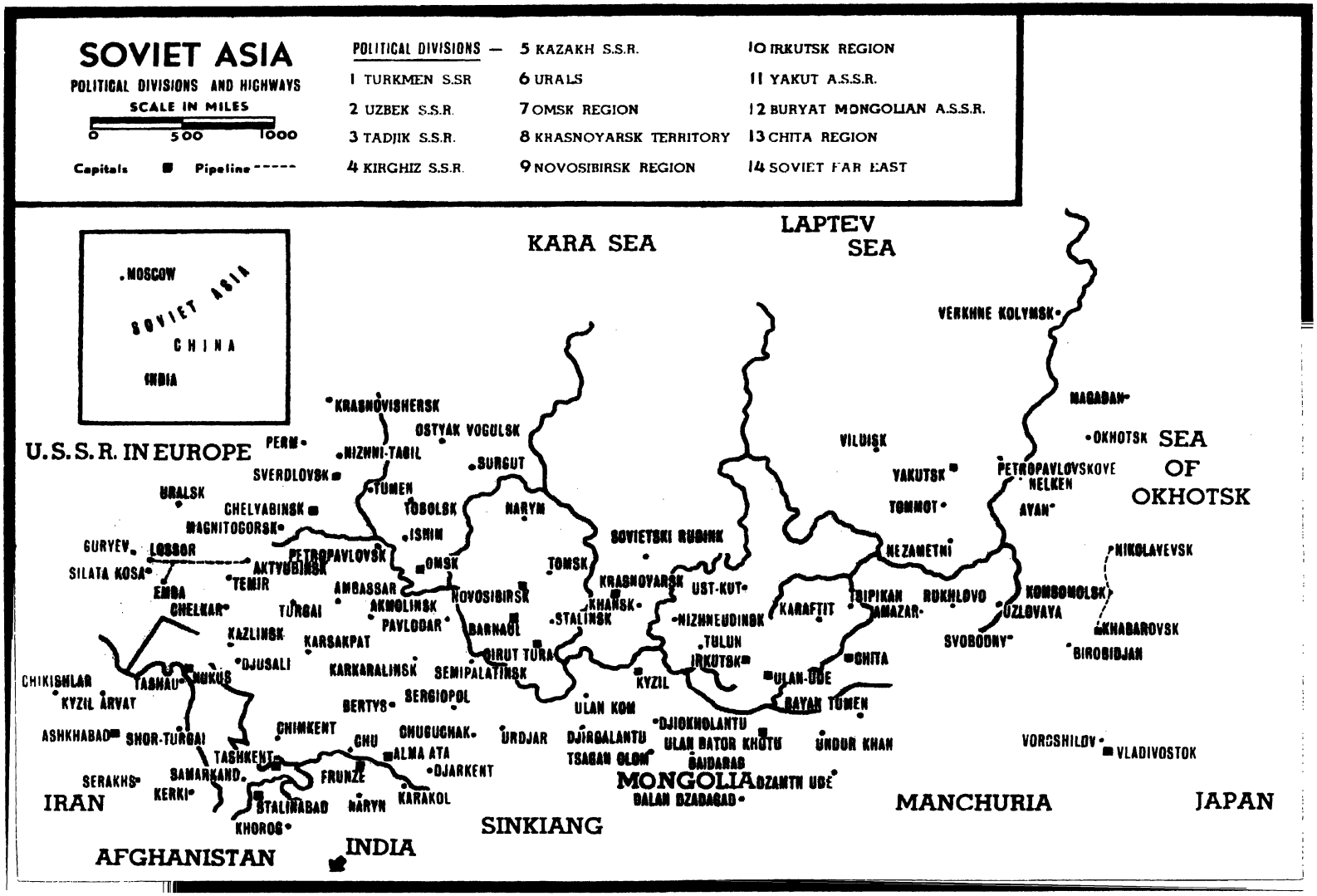
Dedicated

to

Ganesh Shrikrishna Khaparde

In Grateful Remembrance


SOVIET ASIA
POLITICAL DIVISIONS AND HIGHWAYS
SCALE IN MILES
0 500 1000
Capitals ■ Pipeline -----
POLITICAL DIVISIONS —
1 TURKMEN S.SR
2 UZBEK S.S.R.
3 TADJIK S.S.R.
4 KIRGHIZ S.S.R.
5 KAZAKH S.S.R.
6 URALS
7 OMSK REGION
8 KHASNOYARSK TERRITORY
9 NOVOSIBIRSK REGION
10 IRKUTSK REGION
11 YAKUT A.S.S.R.
12 BURYAT MONGOLIAN A.S.S.R.
13 CHITA REGION
14 SOVIET FAR EAST
MOSCOW
SOVIET ASIA
CHINA
INDIA
KARA SEA
LAPTEV SEA
VERKHNE KOLYMSK
MAGADAN
OKHOTSK
SEA OF OKHOTSK
U.S.S.R. IN EUROPE
PERM
KRASNOVISHERSK
OSTYAK VOGULSK
NIZHNI-TAGIL
SURGUT
SVERDLOVSK
TYUMEN
URALSK
CHELYABINSK
TOBOLSK
NARYM
MAGNITOGORSK
ISHIM
VILUISK
YAKUTSK
PETROPAVLOVSKOYE
NELKEN
TOMMOT
AYAN
GURYEV
LOSSOR
PETROPAVLOVSK
OMSK
TOMSK
SOVIETSKI RUDNIK
NEZAMETNI
NIKOLAYEVSK
SILATA KOSA
AKTYUBINSK
TEMIR
AMBASSAR
NOVOSIBIRSK
KRASNOYARSK
UST-KUT
EMBA
CHELKAR
TURGAI
AKMOLINSK
KHANSK
KARAFTIT
TRIPIKAN
AMAZAR
RUKHLOVO
KOMSOMOLSK
UZLOVAYA
KAZLINSK
PAVLODAR
BARNAUL
STALINSK
NIZHNEUDINSK
KHABAROVSK
KARSAKPAT
TULUN
SVOBODNY
BIROBIDJAN
DJUSALI
IRKUTSK
CHITA
CHIKISHLAR
TASHAU
MUKUS
KARKARALINSK
SEMIPALATINSK
KYZIL
ULAN-UDE
KYZIL ARVAT
SERGIOPOL
BERTYS
ULAN KOM
BAYAN TUMEN
DJIOKHOLANTU
ASHKHABAD
SHOR-TURGAI
CHIMKENT
CHU
CHUGUCHAK
URDJAR
DJIRGALANTU
ULAN BATOR KHOTU
UNDUR KHAN
VORCSHILOV
VLADIVOSTOK
TASHKENT
ALMA ATA
TSAGAN OLOM
BAIDARAG
SERAKHS
SAMARKAND
DJARKENT
FRUNZE
MONGOLIA
OZANTH UDE
IRAN
KERKI
STALINABAD
NARYN
KARAKOL
DALAN DZADAGAD
MANCHURIA
JAPAN
KHOROG
SINKIANG
AFGHANISTAN
INDIA

SOVIET ASIA

THE POWER BEHIND U. S. S. R.

BY

K. S. HIRLEKAR

FOREWORD BY

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PLACE OF FILM IN NATIONAL PLANNING

SOVIET RUSSIA—The Secret of Her Successes
(*2nd Impression*)

Printed by M. N. Kulkarni at the Karnatak Printing Press, Chira Bazar, Bombay 2 and Published by K. S. Hirlekar for Avanti Prakashan, Vrindavan, Dadar, Bombay 14.

FOREWORD

IN the last war, Russia was three hundred years behind Western Europe in a state of ignorance, inefficiency, and confused loyalties. (In the present war, Stalingrad and its sequel have established that Soviet Russia is the dynamic reality.) The signal achievements of the U.S.S.R. in this war are an evidence of its technical efficiency and patriotic enthusiasm. How was this immense population of nearly 200 millions, which was largely illiterate and primitive, trained to the technology of the machine ? How were the different races and nationalities welded into an effective unity ?

This book by Mr. Hirlekar, which brings together a vast amount of information, arranged with skill and discrimination enables us to some extent, to answer these questions. In these twenty-seven years, Soviet Russia increased food supply, socialised the land, developed a modern industry without the help of foreign capital, built up a great army whose loyalty and devotion to the Soviet State are unquestioned, and created a stable and efficient government to carry out the task of social reconstruction and national defence.

The writer of this book tells us that we in India have a good deal to learn from an objective study of the Soviet enterprise, especially in regard to our economic life and the problem of national minorities.

Poverty, illiteracy, disease are not an essential and unavoidable part of life. They could be swept away if we had drive and determination. The Soviet achievement demonstrates what can be done in these matters. It shows that the great social ideal can be realised, if we have will and energy.

The Union is rendered possible because the basic economic needs of all citizens, irrespective of their race or nationality, are met and safeguarded by the State. The Stalin constitution of 1936 guarantees to each citizen the right to work, to rest, to education, to security in old age, and illness. These rights are applicable to men and women of every race and colour. Article 123 states that "The equality of the rights of citizens of the U.S.S.R. irrespective of their nationality or race in all spheres of economic state, cultural, social, and political life is an indefensible law. Any direct or indirect restriction of the rights of, or conversely, the establishment of direct or indirect privilege for citizens on account of their race or nationality, as well as the advocacy of racial or national exclusiveness or hatred and contempt is punishable by law. Race equality is a part of the Stalin constitution and Soviet practice. This cannot be said of the other two groups, the United States of America and the British Empire. In the Soviet Union all citizens, whether they belong to a minority or a majority group, share in the benefits of a common economic system.

The different republics have the liberty to pursue their own cultural traditions. While recently these republics have

been given larger rights, including the right of secession, the general spirit works against this tendency, and if any republic takes this right seriously, it will be in difficulties. Short of secession, the Republics have opportunities for self-expression and share in the work of the All-Union administration of important matters of common interest. These states confer in concluding treaties with foreign states, in deciding the questions of defence, of war and peace, in fixing the boundaries of the units, in the regulation of foreign trade which is a state monopoly, in administering bank credits, transport loans, etc.

Soviet Russia has been steadily shedding its earlier extravagances and taking a constructive democratic line. The sanctity of the human individual and the values of spirit are asserting themselves. The re-introduction into Soviet schools of the pre-revolutionary Russian history, the disbandment of the Comintern, the appreciation of the role of the Orthodox Church in Russian history and Russia's *entente* with the Western powers are indications that Russia is developing into a social democracy, where the essential liberties of individuals are preserved.

We, in India, have much to learn from Soviet Russia and its achievements in the Asiatic part of the Union, and this book, with its statistical data and impressive photographs, is a helpful guide to it.

BENARES,
17th January, 1945.

S. Radhakrishnan.

INTRODUCTION

MY book "SOVIET RUSSIA—the Secret of her Successes" which was published in March 1944 had a good reception both from the authorities in the economic and industrial field as well as from the leading commercial and trade magazines and daily newspapers all over India. This encouraged me to make a further study of the conditions in that vast land of Soviet Asia which is the power behind the present stupendous war effort of the Stalin Government. In this research work I was considerably encouraged by the Hon'ble Dewan Bahadur Sir A. Ramaswamy Mudaliar, Member of the Viceroy's Executive Council, who not only gave me valuable suggestions but lent me some rare publications.

To Sir S. Radhakrishnan I owe a debt of gratitude. Very readily he consented to write a foreword to the present work.

The new Russian experiment after the October Revolution in 1917 and particularly the outbreak of hostilities between Germany and Russia focussed the attention of the whole world on Soviet Russia. This led to a great interest in everything regarding that particular part of the extensive domain of the Soviets where it was reported the Stalin Government had already transferred its gigantic industrial enterprise. In every Western country and particularly in America there was intensive study of the problems of Soviet Asia, of the land, its people, its rulers and of the achievements of the Soviet Government there during the last two decades.

In America especially Soviet industrial enterprise was regarded as a good field for the absorption of American machinery and American technical talent. Quite a spate of books poured in regarding this largely unknown land which is the biggest territorial unit in the whole world under the power of a government valiantly determined to turn it into the most wonderful industrially and culturally developed territory. Much of this literature is written from a biassed view of Soviet enterprise, some authors lauding it to the skies while others, although they admit the material success achieved by the Stalin Government, reading only a deep political purpose in it.

We in India, however, have a good deal to learn from an objective view of this stupendous Soviet enterprise. Of fascinating interest to us in this country is the fact that in Soviet Asia dozens of nationalities are now living in peace and prosperity. The communal problem does not exist, nor does any bickering over the language difficulty. Each autonomous unit is assured of every freedom to reach the highest stage of industrial and commercial expansion. The tie that binds these Soviet nationalities together is their love for the new way of life, their fierce determination to defend and advance not only their own national well-being but that of the whole Union of Soviet Republics. Thus the dream of the Ukranian poet, Shevchenko, that out of the Revolution would arise "a family new and free, a family of nations" has been achieved on a truly large scale.

How did the Soviet directing authorities achieve this ?

(1) They did it by preserving in Soviet Asia the language, the past culture, and traditions of each separate nationality.

(2) Every nationality was urged to develop new culture, new scientific methods, new type of farming, new industry, new and distinct ways of life.

(3) Special attention was paid to those tribes and people who were in danger of losing their traditions and culture because they had been scattered far and wide under the previous ruthless Tzarist imperialism. Some nationalities were in a similar position owing to their attempted extermination through centuries. A new lease of life was given to these people not by their own leaders, because at the time they had none, but by the Central Soviet Government.

(4) Soviet language experts went over the whole territory seeking out primitive peoples who previously had been hunted out like animals. After studying their speech they were able to work out written languages for them.

The result has been colossal. Each autonomous group is given an ideal to look forward to, has been encouraged to feel itself a self-respecting member of the whole group of nations and owing to the revival of its own culture and traditions, feels confident, that it will raise itself to a higher level of civilisation.

In twenty years, whole areas which were sunk in indescribable illiteracy have been turned into the most literate areas in the Union, keen on industrial and cultural progress.

This book gives a detailed account of these expansions, with the help of a large number of maps. These are printed in two colours and a new technique has been used for their printing, perhaps for the first time in this country. The maps have been specially drawn up to suit the letter press. In preparing them Mr. S. N. Kamat, the artist, has been of particular help to me. He studied all my requirements carefully with the result that the designing of these two-coloured maps proved really useful.

For ages past there has been contact between India and Central Asia through trade routes, and there is no reason why a more intense cultural and industrial contact should not be established between this country and the Soviets. After all Tashkent is only a few hours' pop by air from Delhi via Kabul. Air traffic will be very soon the accepted mode of long distance journeys. A recent oft-repeated complaint in our country is that we suffer from " a technicians' famine ". A country contiguous to us did suffer from it but *solved* the problem. Why should we not send our young men to it, where they will be welcome, and find a solution for us ? Why should we not send our best teachers and students to Russia for getting first hand knowledge of Soviet attainments ? Now there is exchange of professors contemplated between America, Australia, China and this country. I am sure the Russians with their keen interest in eastern philosophy will return the compliment. This will lead to research activities in Indian Universities in regard to Soviet achievements. The University

of Birmingham has already started a research department and the Institute of pacific Relations in America and other American Universities are engaged in similar work.

Amongst those numerous friends who have been of particular use to me in bringing out this book, I should like to mention Mr. L. G. Khare, who was formerly Acting Editor of the *Bombay Chronicle,* Mr. G. P. Bhave, Specialist in Cartography, Mr. S. M. Y. Sastry and Mr. Sethu Ram.

I am indebted to the United States Office of War Information for their very kind courtesy in allowing me to make use of a book on Russia in micro-film. Some of the information given in the appendices is culled from this source.

I shall consider this humble effort of mine amply rewarded if this little volume secures the same reception as my previous publication, the second edition of which with additional matter and photographic illustrations is just out.

"VRINDAVAN," DADAR,
Bombay 14,
15th January, 1945.

K. S. Hirlekar.

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The last five pictures have been reproduced from "*U. S. S. R.* In construction—1917-1937."

ABBREVIATIONS FOR REFERENCES

U. S. S. R.	U. S. S. R.—Social & Economic Survey by *S. P. Turin.*
D. O. S.	Dawn over Samarkand by *Joshua Kunitz.*
S. T. S.	Soviet & Tzarist Siberia by *George Borodin.*
S. A.	Soviet Asia by *R. A. Davies* and *A. J. Steiger.*
I. L.	International Literature.
S. S.	Soviet System by *M. Kalinin* and *A. S. Shcherbakov.*
N. S. T.	The New Soviet Theatre by *Joseph Macleod.*
D. I. S.	Dawn in Siberia by *G. D. R. Phillips.*
S. C.	Soviet Calendar, 1944.
S. F. E.	Soviet Far East & Central Asia by *William Mandel.*
N. V.	News & Views from the Soviet Union published by *Tass Agency, Delhi.*
L. O. S.	Land of the Soviets by *Marguerite Dun Stewart.*
R. S. W.	Russia's Secret Weapon by *Dyson Carter.*
H. R. P.	How Russia Prepared by *Maurice Edelman.*

OTHER LITERATURE CONSULTED

The Social Revolution & the Right of Nations of Self-Determination by *Lenin.*

To the Communist Comrades in Turkestan by *Lenin.*

The National Question by *Stalin.*

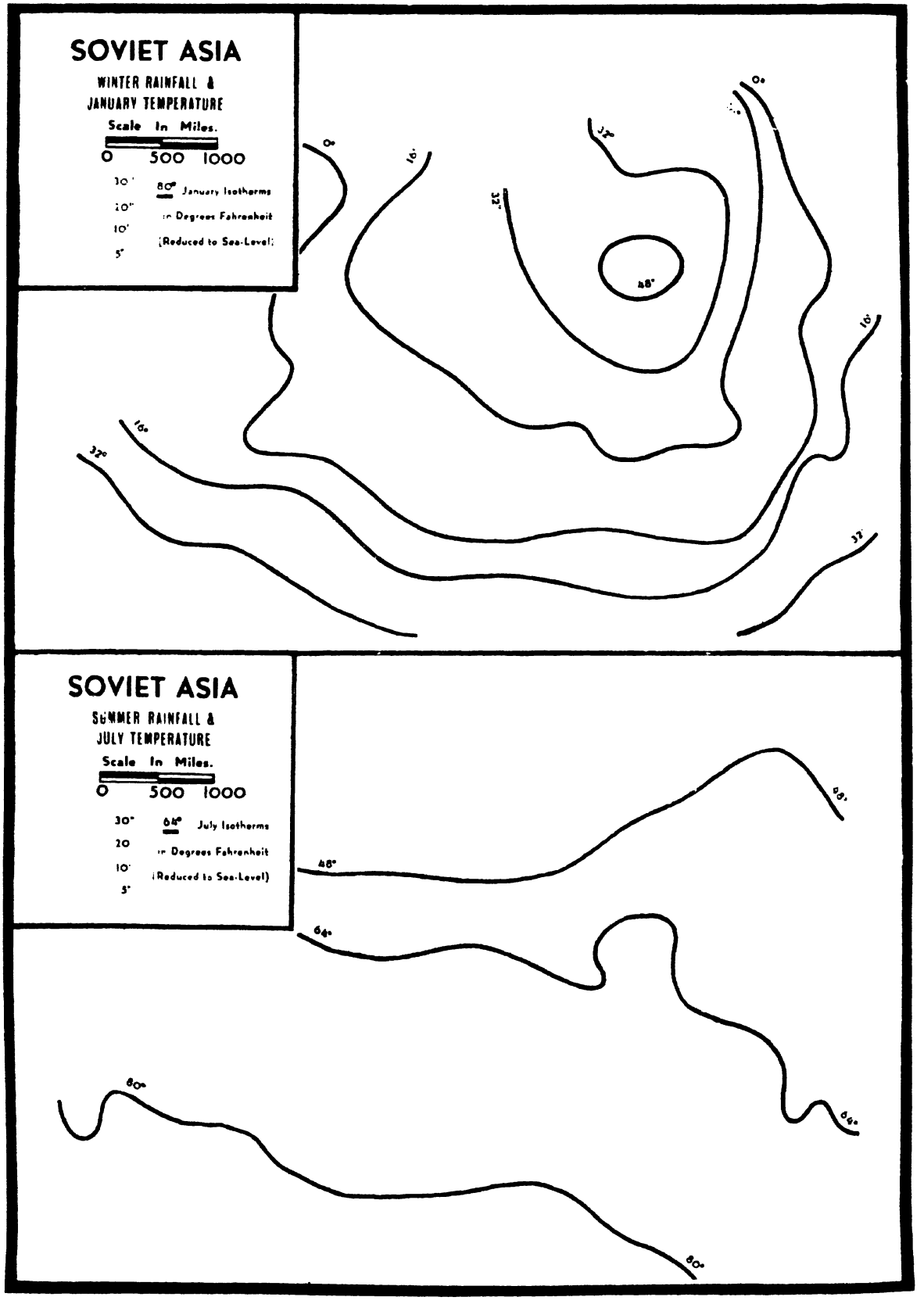
Moscow News.

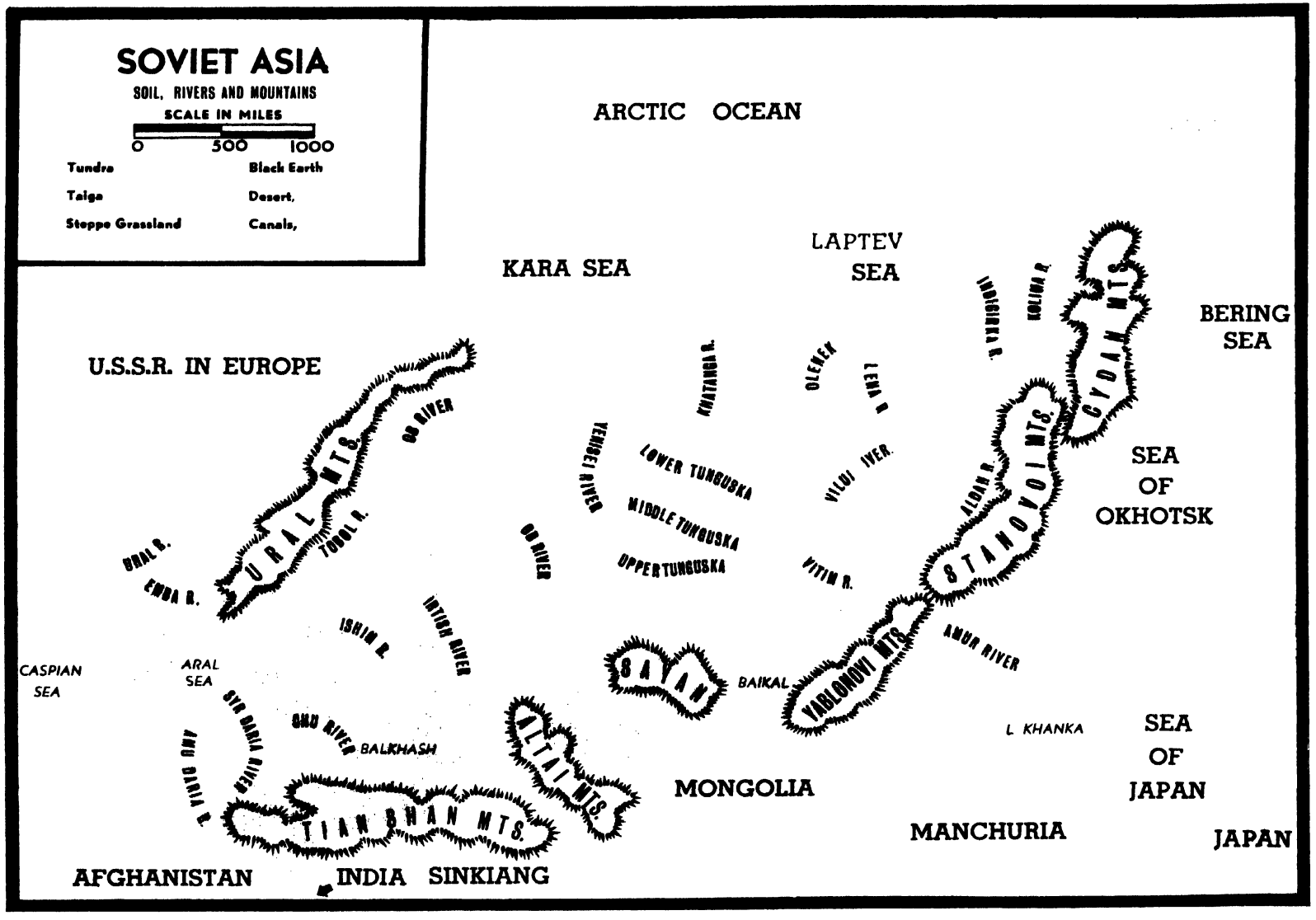
Russian Peasant and other Studies by *Sir John Maynard.*

Soviet Economy and The War by *Maurice Dobb.*

The Conquest of Siberia by *Yusi Semyonov.*

The United Transport System of the U. S. S. R. by *K. N. Tverskoi.*


SOVIET ASIA
WINTER RAINFALL &
JANUARY TEMPERATURE
Scale In Miles.
0 500 1000
30"
20"
10"
5"
80° January Isotherms
in Degrees Fahrenheit
(Reduced to Sea-Level)
0°
16°
32°
48°
0°
16°
32°
16°
32°
SOVIET ASIA
SUMMER RAINFALL &
JULY TEMPERATURE
Scale In Miles.
0 500 1000
30°
20
10°
5°
64° July Isotherms
in Degrees Fahrenheit
(Reduced to Sea-Level)
80°
48°
64°
80°
64°
80°


SOVIET ASIA
SOIL, RIVERS AND MOUNTAINS
SCALE IN MILES
0 500 1000
Tundra
Taiga
Steppe Grassland
Black Earth
Desert,
Canals,
ARCTIC OCEAN
KARA SEA
LAPTEV SEA
BERING SEA
SEA OF OKHOTSK
SEA OF JAPAN
JAPAN
U.S.S.R. IN EUROPE
URAL MTS.
OB RIVER
URAL R.
EMBA R.
TOBOL R.
ISHIM R.
IRTISH RIVER
CASPIAN SEA
ARAL SEA
SYR DARIA RIVER
AMU DARIA R.
AMU RIVER
BALKHASH
TIAN SHAN MTS.
AFGHANISTAN
INDIA
SINKIANG
ALTAI MTS.
MONGOLIA
YENISEI RIVER
KHATANGA R.
LOWER TUNGUSKA
MIDDLE TUNGUSKA
UPPER TUNGUSKA
OLENEK R.
LENA R.
VILUI IVER.
VITIM R.
SAYAN
BAIKAL
YABLONOVI MTS.
STANOVOI MTS.
ALDAN R.
AMUR RIVER
L. KHANKA
MANCHURIA
YANSIEYA R.
KOLIMA R.
CYDAN MTS.

CHAPTER I

PHYSICAL FEATURES

THE Asiatic domain of the Union of Soviet Socialist Republics, conveniently termed Soviet Asia, covers an area of 6,400,000 square miles and occupies about one-third of the Asiatic continent. It extends from the Urals and Caspian Sea in the West to the Pacific Ocean in the East. In the North it is bounded by the Arctic Ocean and in the South and South-West by the Tian-Shan and Pamir Ranges and Western China Highlands. Its frontiers touch Iran, Afghanistan, China, Manchuria, Korea and in the island of Shakhalin, Japan.

From India Soviet Asia is separated by a 9-mile wide and 4-mile high mountain strip of Afghan territory.

From the point of view of soil, climate and vegetation seven distinct belts can be discerned from the Arctic in the North to Afghanistan in the South.

In the extreme North, skirting the Arctic Ocean along the whole coast, reaching from a few miles along the White Sea coast to more than a thousand miles in the Chukot Peninsula opposite Alaska lies the zone of Tundra. It occupies more than one-sixth of the total area of Soviet Asia. Beneath the surface soil which thaws in summer to a depth of 3 to 4 feet, lies subsoil which is permanently frozen at some places to a depth of 890 feet. In the summer the Tundra is swampy : but summer is so short that moisture has no time to penetrate the frozen subsoil. The vegetation is mostly mosses, dwarf birches and berry bushes. Very few people lived in this region in the past. Reindeer and dog sleighs were the sole means of communication.

South of Tundra is the Taiga. It is forest land and immense forests of coniferous trees make the Taiga the wealthiest timber area in the whole world. It occupies roughly three-fifths of the territory of Soviet Asia and encompasses an area of about 4½ million sq. miles. It is replete with game and fur trapping is one of the chief occupations of the inhabitants. The furs were the main lure that brought Russian hordes into the Siberian soil.

Further south extending from the lower Urals to the borders of Mongolia is the yellow green forest Steppe where clusters of trees alternate with open steppe which mostly is under cultivation and forms the granary of Soviet Asia.

Adjoining the southern boundary of the Steppe is the semi-desert area where vegetation is a spotty growth of thin greenish grey cereal grass. Even this does not take root in many salty patches where in the spring salt lakes are formed and in the summer, the water evaporating, thick beds of salt crystals are formed.

Then come the Central Asian deserts. But half of the soil, roughly 330,000 sq. miles can be revived by water and the people have become skilled in building irrigation

canals. Wherever water has been made available cotton and sugar beets are grown. In this area, however, immense deposits of minerals have been found, especially of non-ferrous metals and mining has become a very important occupation.

Lastly the southernmost region of Soviet Asia is the "Emerald green belt of subtropical vegetation." Cotton is the principal crop here while orange groves and sugar cane plantations are also proving successful.

A striking peculiarity of Soviet Asia is that practically all the territory slopes northwards and the most important of the rivers consequently flow north into the Arctic Ocean. Only two rivers of any importance, the Ural and the Emba flow south into the Caspian Sea.

The fact that the three most important rivers of Siberia—the Ob, the Lena and the Yenisei—flow north into the Arctic which is frozen most of the months, makes these rivers unnavigable at the mouth. However they are navigable for part of their course and provide the sole means of communication. River Amur, the fourth important river in Soviet Asia, flows also north but into the Pacific.

The lengths of these rivers and the region of their navigability is given in the table below :

In thousand kilometres.

Name	Total Length	With tributaries	Navigability.	Percentage.
Ob	3·3	43·6	17·0	36 %
Lena	4·4	19·7	9·1	46 %
Yenisei	3·6	26·3	8·4	32 %
Amur	2·9	19·3	8·3	43 %

(Table reproduced from U.S.S.R.)

In Central Asia there are two rivers, both navigable, Amu-Darya and Syr-Darya and both of them empty themselves into the Aral Sea.

Aral Sea is the world's fourth largest inland body of water. There are two more important lakes besides the Aral Sea in Soviet Asia, each striking in its own way. The first of them, Lake Baikal is the deepest lake in the whole world and the other, Lake Balkhash is remarkable for the fact that only one river flows into it and none flows out. The rivers and lakes of Soviet Asia by providing routes of communication have materially contributed to the economic development of Soviet Asia.

The mountains of Soviet Asia, likewise, are remarkable not for their influence on climate but for their economic contribution. The Urals and the Altai and the Pamir slopes contain some of the finest and richest deposits of minerals and have been responsible for the tremendous progress that Soviet Asia has been able to achieve within the last two decades.

Climate had profoundly influenced the history and economic development of this area, till recently. In the past, very few people had inhabited the Arctic and sub-Arctic area, for it was too cold. Likewise the deserts and semi-deserts of Central Asia were also very sparsely populated, for it was too hot and dry. Along the Arctic coast the winters are long and in places the temperature drops down to 100 degrees F. below zero. On the other hand, the temperature rises to 90 degrees in shade in summer months.

In the deserts the temperature mounts up to 158

degrees. So, till recently, nature limited man. Not until man could finally emancipate himself from the tyranny of nature with the aid of science, could there be progress in Siberia and the Central Asian desert.

The Soviets believed that the whole problem was contained in man. "Once he begins to advance on the desert and the Arctic in an organised, planned and scientific manner, he can change them into blooming gardens," they asserted.

And the history of Soviet Asia during the last two decades is a demonstration in practice of this healthy assertion.

CHAPTER II

BEFORE THE DAWN

Conquest and Consolidation

Siberia

THE conquest of Siberia was not undertaken for territorial aggrandisement and expansion. Nor had the mighty white Tzar much hand in the conquest. For, it was not the Imperial arms that originally set out to subjugate Siberia but independent parties and bands of adventurers. It was the lure of trade in furs that first set the Russians on to the Siberian lands.

Encouraged by the merchants, the Cossacks steadily expanded into Siberia in search of furs—Cossacks who in official documents were described as "vagabonds, thieves, robbers, deserters and run away peasants." Trade meant establishments, fighting, fortifications and finally incorporation of the territory. And as soon as the Cossacks settled down in one area, they would hear wild stories about the rich animals in forward areas and would march off again. The Tzarist Empire in Siberia expanded; and it was the beavers, sables, black foxes and ermine that lured the Russians and established them there.

The method of expansion can best be illustrated by the concrete example of what happened in Kamschatka. One of the trader bandits from the interior had travelled to the river Perishina (in the Far East) and returned with the news of a new country. According to him the red foxes were of a size he had never seen before! But the most interesting animal of all was the Sea Otter. This coast marauder protected itself against catching cold with so magnificent a fur, that only that of the black fox could

compare with it. " Thick, silky, soft as down, black and dotted with little silvery hairs ; what would the Voveyod of Yakutsk, what would the Tzar say if the Cossacks sent him such a present ! " So the Cossacks jumped off in search of the Sea Otter and expanded to the Pacific coast in search of furs.

The Russian Cossacks in the eastward progress across Siberia had mostly an easy time of it ; their movement can scarcely be dignified by the term conquest at all. It was rather a matter of infiltration, without any kind of military plan further and further east in search of '*soft gold*,' the furs that were as precious to the Treasury as to the merchants of Peking and Bokhara.

The conquest of Siberia did not proceed on a straight and gradual path ; it progressed in the form of leaps and jumps. With each jump, the conquerors landed at the banks of a new river and, therefore, the conquest of Siberia has been termed a ' leap frog conquest from river to river '. From the Volga the first leap was to the river Ob. " Here it stops, falters, looks round before embarking on the next great leap. " The next leap landed the conquerors on the banks of the Lena, " whose shores and waters carry the most valuable metal in the world, the yellow god, Gold." Here the conquest halts for a longer period, and appears " out of breath, tired and bewildered." After a century was another leap taken, this time to land on the shores of the river Amur.

In these jumps the river Yenisei was not properly touched. For from the Ob the conquerors devoted their attention to the Lena. The Yenisei had to await attention till after the Soviets were properly saddled in power. The Soviets came back to the conquest of the Yenisei basin with a redoubled vigour. " The conqueror Space as if guilty in leaping over the Yenisei on to the Lena, returns and stays on the shores of this river for the last quarter of a century. It builds roads along its bank, it makes its waters navigable for the inhabitants and traces and immortalizes its mouth by building the town of Igarka—the only town thriving on such a northern latitude—the most Arctic town in modern history of colonisation. "

In point of time also, the conquest represented curves and jumps. From the superficial point of view, of course, the whole conquest was undertaken and achieved by the Russians. But there were three distinct periods in the conquest. And each period had a different characteristic. It was the Cossack adventurer that started the conquest of Siberia, and he offered a gift of the domain he conquered to the Tzar of Muscovy. This period, therefore, can be termed the Muscovite Period. The Tzar of Muscovy, however, gradually expanded his power and the Romanoffs finally ruled over the whole of Russia, and the conquest of Siberia can thereafter be rightly termed a Russian conquest. The third period began with the consolidation of the Soviet power. It is this period that saw the proper and full exploitation of the resources of Siberia.

In Siberia, at the beginning of this Russian penetration there were " Empires of Tartars. " Though the armies of the Tartar Emperors were better mounted and armed, they fell an easy victim to the Cossacks ; for the Empire in actuality consisted of several princedoms of an alien race.

Their people differed from the Tartars in language and religion. The people paid tribute to the princes and, at bottom, it made not the least difference to whom they had to pay it. They were poor defenders of the Siberian Empire. So, one by one, the headmen of the primitive tribes accepted the Tzar's grace ; made oaths of allegiance, and paid regular tribute of furs. As the Cossacks advanced, a series of fortified settlements were established. These were ' Ostrogs ' or strongholds which steadily nailed Siberia to the Muscovite Empire. Each of these fortresses later was to become a great city of Siberia. In 1604 at Tomsk, in 1618 and 1619 at Kuznetsk in the Altai Mountains and Yeneseisk on the Yenesei, fortresses were established.

So the Tzarist Empire expanded, and the chief characteristic of the Siberian conquerors of this expansionist period was that all were hard bitten, good for nothing men whose trading amounted to robbery. Almost all of them went to work independently but kept most carefully in touch with Moscow. Moscow staked nothing but steadily raked in the profits. The Tzar had an inevitable share in all the loot.

During the 19th century, however, Tzarism made attempts to colonise Siberia with exiles : but it was a fiasco and every scheme of colonisation in Siberia ended, inevitably, with the colonists absconding. Living in the forests was found to be more healthy than in the colonies and settlements under the supervision of the Tzarist officers.

But though official colonisation schemes had failed, independent settlements of Russians sprang up in border regions, of men who had rebelled and run away from tyranny, of peasants who had gone off their free will to Siberia in search of land and freedom. " These free men extended the limits of the Russian colonisation on all sides. The Government not only gave them no support but even fought against this elemental outward pressure in the 18th century. It threatened to knock them out as the penalty for unauthorised movement beyond the frontier, and often carried out the threat. But in spite of everything the Russian troops, whenever they went forward, found Russian villages which had come into existence without authority. Their inhabitants traded and fought with the natives and concluded treaties of peace with Chinese, Kalmuk, and Kirghiz chieftains and then became Russian subjects again because the frontiers of the state had overtaken them, and in the course of two and a half centuries Siberia from Urals to Amur River was dotted with settlements like these." And the Tzar found himself the Emperor of the vast realm of Siberia.

During the 19th century the process of independent colonisation and free-booting exploitation received a greater impetus : added to the lure of the furs, real gold was discovered in Siberia and that meant one more inundation of profiteers.

And the Tzar and the independent colonists, the officials and the traders, all were interested in one thing only : looting ! And for the looting and exploitation there was no limit. The ' Yakuts ' in a complaint to the Tzar indicate the brutality of Russian officialdom in their exploitation. Their specific complaint was against Voeyoda

Golvin. " He tortured us, " ran the complaint. " Our wives he shamed with many tortures and he had us flogged 150 times and more, and he burned us on open fire and shook us many a time and poured ice water on our heads and with red hot pincers pulled the veins and navel and burned us with fire in our private parts and broke our ribs and burnt our backs with candle and drove spikes under our nails. "

To the Russian Tzarist Government the huge area of Siberia, ten times bigger than the whole of Europe, represented nothing but a vast land from which the foreigner should be kept shut out. The Russian Government had neither the vision nor the resources to develop this region : and its greatest fear was that some other power would try to develop this region, if the least opportunity was given. Therefore the Russian Government set on a policy of secrecy. " Siberia was theirs. Siberia was a land into which foreigners must not penetrate. It was the waste-land of Russia, the land into which could be thrown those whose presence in Great Russian and the European provinces was distasteful or dangerous. " (*S. T. S.*).

So Siberia would have remained the prisoners' cell and the " cess pool " without the least development but for the Tzars' need of an outlet into the sea.

Russia was drawn into the vortex of international trade and competition and could not keep aloof and therefore she had to become conscious of sea power. She felt the need for an outlet to the channels ' along which ran the wealth of the world. ' " Such seas as she had were either landlocked or icebound. Her northern ports were unuseable for a greater part of the year when the cruel hand of the Arctic winter held them. The Baltic was little more than a lake, the gateways of which were held by foreign janitors. Russia looked east, eastwards towards the Pacific. " The Pacific was the only warm waters that Russia touched. To connect Moscow with its eastern ice-free ports was conceived the Trans-Siberian Railway. The function of the railway, therefore, was not visualised to be the development of the whole of Siberia which the railway served. It was limited to bring the East into ' touch ' with the West.

Nevertheless, the construction of the railway stimulated the development of trade and industries on either side of the rail track and, before the Soviet Revolution, the only economic development of Siberia was found along the Trans-Siberian Railway.

Yet it would not be far from truth to say that Siberia was a dark continent until the Soviet Revolution. It was only notorious as a land of exiles. " Tzarism held the country as a colonial hinterland under virtual military occupation and, when in need of workmen for the silver and gold mines that were discovered, sent all sorts of outcastes including political offenders into Siberian exile as convict labour. Gloom and oppression overshadowed the rich country, " (*S. A.*) and Siberia remained a ' cess pool ' until the Soviets came. It was then that the cess pool was turned into an inexhaustible reservoir.

Buryat Mongolia

The tales of availability of furs led the Russians on to Buryat Mongolia.

At the time, in Buryat Mongolia internal strife was rife : society was in a stage of fundamental change, passing from the patriarchal gentile society to slave feudalism and the inhabitants were divided into two warring political groups.

The feudal ' Taishas ', the rulers of Buryat Mongolian tribes, were anxious to get rid of their huge stores of furs they had collected by exploiting the poor people : they were also eager to obtain the assistance of Russian armed strength in their fight against the rebelling people and they readily accepted Russian alliance and agreed to pay homage and tribute to the Tzar. But the common people had no stores of furs and they did not want the Tzars. They rebelled and were crushed.

In the feudal conditions of Russia, the governors of different Siberian fortresses were rivals for the overlordship and exploitation of the country, and constantly sent out Cossack expeditions. When local expeditions failed, Moscow had to come to their rescue with a central Siberian expedition. But since the soldiers in Siberia in general were nothing but hooligans and robbers, they robbed and pillaged all their way. One such expeditionary army went up and down the river Angara, slaughtering and enslaving men and women and children while the ' Taishas ' hastened to resume their profitable relations with the Russians. By 1674 Russia established so many forts round and in the country that the Buryat could no longer rise in revolt.

The Russians proceeded from the conquest of the Buryats to their full-scale exploitation. The local Russian authorities regarded the tribesmen as fair game and each fort looked on the others as rivals in the exploitation, and the Moscow authorities had to intervene and demarcate the boundaries for the spheres of exploitation.

For the colonisation of Buryatia, peasants were imported from European Russia in order to stabilise the country and raise the proportion of inhabitants dependably loyal to the Tzar, but the feudal governors who were interested in their own personal enrichment viewed Russian and Buryat common man alike. " They exercised a beautiful impartiality as between Russians and the native people : in their robbery sometimes the common people made common cause and revolted only to be suppressed. " Gradually, however, the Russian peasants who settled there grew richer and richer. More and more of the Buryats were squeezed out of many of their tribal lands, for as soon as the Buryats began to develop an area for agriculture it tended to be taken over from them and given to Russian settlers. These Russian rich peasants, in turn, exploited the Buryats and the Buryats rose in revolt against the whole Russian population. No doubt they were crushed.

The character of the Russian rule in Buryat Mongolia can be summed up in the words of Kropotkin, Minister of War, who en route to the Far East in 1904 was approached by a Buryat delegation. " Bear in mind, " he says, " that if your people behave themselves badly you will answer for it. If, which God forbid, your people think of taking any sort of liberties or of opposing the Tzar's orders, then know that in a flash you will be wiped off the face of the earth. No trace will be left of you. See how many Russian troops are here : but they can be-

come hundreds of thousands and you would be immediately annihilated. You can demand nothing. You can only ask for mercy."

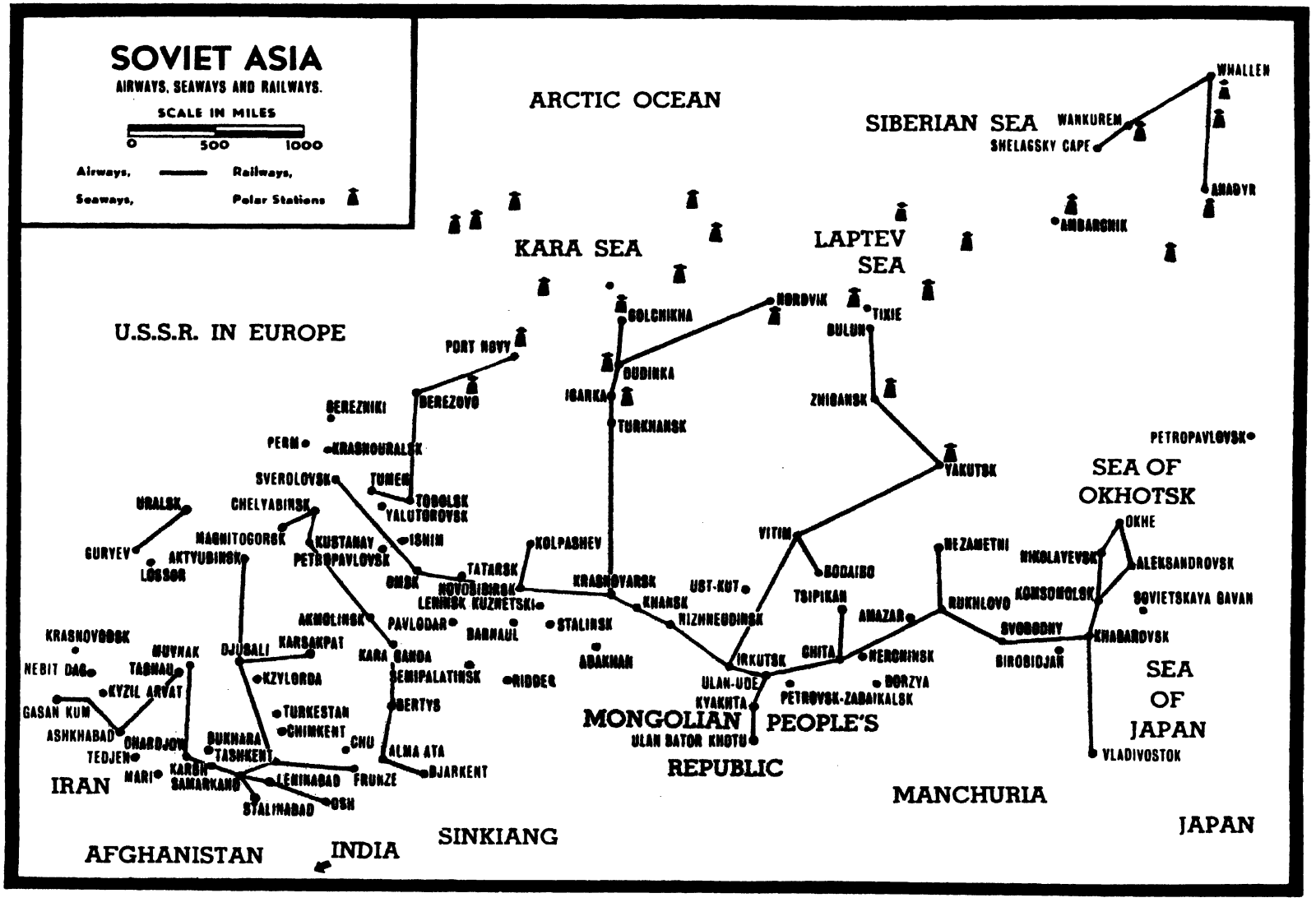
Central Asia

The conquest of Central Asia however was of a slightly different nature. For, unlike Siberia, Central Asia was a civilised and mostly well settled country. Bokhara and Samarkand were one of the richest trading centres, having relations with India and China. The "pleasure domes and gardens bright" of ancient Samarkand and noble Bokhara lured conqueror after conqueror, Alexander the Great, Genghis Khan, Tamerlane. By the time the Russians turned their attention seriously to Central Asia, there were three Khannates formed by the Uzbek chieftains. They were the Khannates of Kokand, Bokhara and Khiva.

As far back as 1717, Peter the First attempted to work his way into Central Asia by stirring up tribal feuds, by siding with one Khan against another in their feuds. But he met with no success. "His successors thought it more prudent to go on with their 'civilising mission' a little more carefully and cautiously, creeping up slowly though inexorably from Siberia and Urals in the North and Caspian in the West and steadily crushing the semi-nomadic Asiatics. First to fall a prey to this were the Kirghiz tribes. A few years later the Tzar had his troops on the Syr-Darya. After that began the conquest of the Khannates." In the eighteen-sixties Kokand was battered and two of its most important towns—Turkestan and Tashkent—were wrenched away. The Khan of Kokand accepted Russian sovereignty. The people, however, resented and rose in revolt in 1873-74 and the Khan had to fight his own subjects who were objecting to their ruler becoming a vassal to the Russian Tzar. Though this revolt was temporarily suppressed, in the next year, 1875, a more serious revolt broke out. The Khan was deserted by every one including his own sons. The Khan could only save his harem and the treasures and throw himself under the protection of the Tzar. The invading armies crushed the insurrection and Kokand was formally annexed to the Empire.

Bokhara was swallowed up in 1863. The Amir made frantic efforts to rouse religious enthusiasm for the fight against the infidels. But the response was negligible. He was, therefore, forced to cede a large part of his territory to the Russians including the most important town, Samarkand, and open the markets of the remaining parts to the Russian merchants and in addition pay a huge indemnity. The Amir of Bokhara, thereafter, became a true vassal of the Tzar.

"These Emirs were the 'effective partners' in the exploitation of the peoples of Central Asia and when the Bolshevik revolution broke out, along with the Tzar his ignominious vassals, the Emirs and the beys, too were swept off. The Empire of Bokhara collapsed in September, 1920. "The Emir, abandoning his hundred wives, but taking his letter of credit on the English Bank (fifty four million gold roubles) fled from his capital, followed by a host of officials, mullahs, merchants and several of his comeliest 'bachi' (young boys.)." He wandered hither and thither, trying to gather forces to crush the revolution. But the effort was futile. His people disowned him and


SOVIET ASIA
AIRWAYS, SEAWAYS AND RAILWAYS.
SCALE IN MILES
0 500 1000
Airways,
Railways,
Seaways,
Polar Stations
ARCTIC OCEAN
SIBERIAN SEA
KARA SEA
LAPTEV SEA
U.S.S.R. IN EUROPE
SEA OF OKHOTSK
SEA OF JAPAN
MONGOLIAN PEOPLE'S REPUBLIC
MANCHURIA
IRAN
AFGHANISTAN
INDIA
SINKIANG
JAPAN
WHALLEN
WANKUREM
SHELAGSKY CAPE
ANADYR
AMBARCHIK
NORDVIK
TIXIE
BULUN
GOLCHIKHA
BUDINKA
IGARKA
TURUKHANSK
ZHIGANSK
YAKUTSK
PORT NOVY
BEREZOVO
BEREZNIKI
PERM
KRASNOURALSK
SVERDLOVSK
TUMEN
TOBOLSK
YALUTOROVSK
ISHIM
URALSK
CHELYABINSK
MAGNITOGORSK
KUSTANAY
PETROPAVLOVSK
GURYEV
AKTYUBINSK
LOSSOR
OMSK
TATARSK
NOVOSIBIRSK
LENINSK KUZNETSKI
KOLPASHEV
KRASNOYARSK
KHANSK
RIZHNEUDINSK
UST-KUT
VITIM
SODAIBO
TSIPIKAN
AMAZAR
BEZAMETNI
NIKOLAYEVSK
OKHE
ALEKSANDROVSK
KOMSOMOLSK
SOVIETSKAYA GAVAN
KHABAROVSK
SVOBODNY
BIROBIJAN
BUKHLOVO
NERCHINSK
CHITA
IRKUTSK
ULAN-UDE
KYAKHTA
PETROVSK-ZABAIKALSK
BORZYA
ULAN BATOR KHOTU
ABAKHAN
STALINSK
BARNAUL
AKMOLINSK
PAVLODAR
KARAGANDA
SEMIPALATINSK
RIDDER
KARSAKPAT
DJUSALI
KZYLORDA
MUYNAK
TASHAU
KYZYL ARVAT
NEBIT DAG
KRASNOVODSK
GASAN KUM
ASHKHABAD
CHARDJOU
TEDJEN
MARI
KARSHI
SAMARKAND
BUKHARA
TASHKENT
TURKESTAN
CHIMKENT
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LENINABAD
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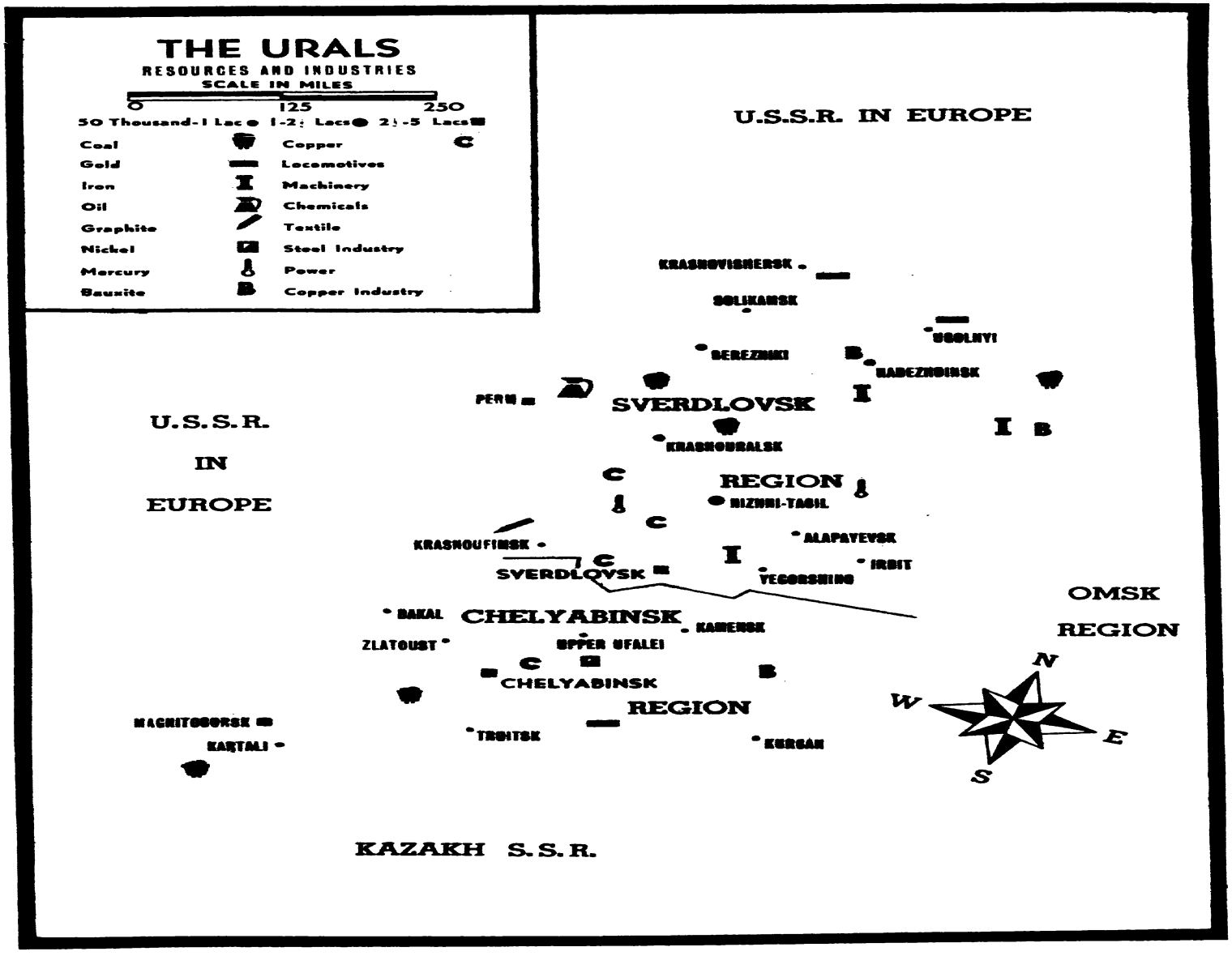
THE URALS
RESOURCES AND INDUSTRIES
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125
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50 Thousand-1 Lac
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2½-5 Lacs
Coal
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Graphite
Nickel
Mercury
Bauxite
Copper
Locomotives
Machinery
Chemicals
Textile
Steel Industry
Power
Copper Industry
U.S.S.R. IN EUROPE
U.S.S.R.
IN
EUROPE
KRASNOVISHERSK
SOLIKAMSK
BEREZNIKI
USOLNYI
BOGOSLOVSK
KRASNOURALSK
PERM
SVERDLOVSK
REGION
NIZHNI-TAGIL
KRASNOUFIMSK
ALAPAYEVSK
IRBIT
SVERDLOVSK
VEGORSHINO
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BAKAL
CHELYABINSK
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he was ultimately forced to leave his country. On the 5th of March, 1920, Emir Said Alim Bahadur Khan fled to Afghanistan. His dream of returning to the throne vanished. He had to content himself, to eke out his living, by " selling caracul in Kabul." (*D. O. S.*)

In 1873 fell Khiva, the Khan of which principality readily accepted Russian protection.

In Tashkent a government for Turkestan was created and a ' Vice-Emperor ' was installed there in all pomp, so that the pomp and magnificence would give the natives an exalted idea of their real sovereign, ' The Great White Tzar. ' During the period of roughly 150 years, by stages, Central Asia was conquered and absorbed into the Russian domain.

But in Central Asia, the Tzar's government deviated from its usual policy of Russification. Instead they attempted to follow the policy of neutral non-interference. The native people were segregated and were allowed to retain their old Moslem form of life. But if ever the native populations revolted, as they did in 1898 and 1916, the Tzar's government resorted to savage repression, annihilated whole villages and killed native peasants by the hundred.

Economically these areas were, of course, exploited. But it was the calculated policy of the Tzarist Government not to tolerate any industrial development in its colonies. They were only to serve as sources of raw materials, especially cotton for Russian industry. " The development of native manufactures was artificially blocked ; the manufacture of textiles in these territories was prohibited altogether. While many Russian manufacturers and a few native merchants made large fortunes, the Central Asian masses remained wretchedly poor. The peasantry was progressively pauperized, ground down by an army of native money lenders who acted as middlemen between the peasants and the Russian cotton industrialists. "

" The natural economy of the Bokharan villages was being rapidly modified ; the industrial crops, especially cotton, and an exchange economy began to play an increasingly important role. The Russian capitalists were opening banks, trading posts, offices in Bokhara, buying up the raw cotton from the peasants and selling them in return manufactured products. The economic and social structure of Bokhara was beginning to change. Something parallel to what had happened previously in Turkestan was now taking place in Bokhara : the growth of commercial capital, disintegration of the feudal and patriarchal relations, pauperization of the peasant masses, and the sharp differentiation of the village population into the extremely poor, the landless, the tenant farmers, at the one pole and the rapidly prospering landlords and kulak class at the opposite."

" The introduction of cotton growing in Central Asia as a whole proved disastrous to the well-being of the lower economic strata. In the cotton districts of Turkestan, for instance, thirty per cent of the entire population were landless, forty per cent had only one head of cattle per family or had no cattle at all, thirty per cent were altogether propertyless and homeless. A vast army of landless peasants and agricultural workers wandered from one region to

another in search of jobs. The indebtedness of the poorest section of the peasantry mounted by almost 100 per cent from 1909 to 1911. The same was true of Bokhara and Khiva. Peasants lost their land. Farm tenancy was on the increase. Only the rich peasants, the kulaks, the beys, those who could afford to cultivate cotton without having to resort to loans found cotton growing profitable. Also the userers and the Russian firms waxed rich on cotton. For the majority of the native peasantry, the transition of Bokhara from a primitive natural economy to commercial farming was the cause of infinite suffering and widespread ruin. The poor were becoming poorer, the rich richer, while wealth was being concentrated in the hands of the Russian bankers, the native money lenders and the beys."

"In the nomad Kazak, Kirghiz and Turkoman tribes, however, the exploitation was more open and brutal. For their pasture lands were forcibly taken away and given over to the Russian settlers who were encouraged to migrate from the over populated central and southern districts of Russia. Deprived of their pastures, their sole source of livelihood, these tribes retired farther and farther into the barren steppes where they were gradually dying out." (*D. S.*)

CHAPTER III

THE POISONOUS INHERITANCE

The Problem and its Solution

Our teaching is not a dogma.....life will show us. We know the road. 'The experience of millions as they move to the task will discover the road. —Lenin

THE Tzarist treatment of the minor nationalities in Asiatic Russia can be best summarised in a single word, 'ill-treatment.' Asiatic Russia was looked upon as a piece of land, whose human material could be made use of as labour power and its raw material could be exploited and utilised for industries at the centre (Moscow region). The Asiatic parts were considered by the Tzars so beyond the pale of the civilised world that they could not mentally grant anything as individual nationality, nor anything so respectable as culture to these people. In spite of this if they noticed a certain consistency in the peculiar traits, language, religion and mode of living of certain people it was only to make fun of it and discredit it. Tzarism was not even a benevolent despotism. It was an open and ruthless form of tyranny. The Tzars aimed at denationalising and Russifying the population and a thorough process of Russification, religious, cultural and lingual was enforced down their unwilling throats. The aim was to absorb all the nationalities

and make them subservient Russians. "One Tzar, one language and one religion" was the ideal. In the missionary zeal to convert the native populations to the orthodox church, state and church were to be hand in hand. As an instance of brutality of the Tzarist Russification programme what happened in the Irkutsk district can be cited here. A regulation was issued that the heads of clans would be recognised only if they became Christians. If any single member of a family was a Christian all the other members were forced to be baptised as well. In one campaign there was a complaint that the Christian priests "fell on the abodes of non-baptised aliens day and night and if they found anyone at home they simply baptised them by force, there and then or dragged them off to baptism at the missionary post. Whoever resisted was beaten, tortured, bound and thrown into prison and subjected to hunger and cold." (*D. I. S.*). In the early days of colonisation, the gaining of converts to Christianity was zealously pursued even for personal gain, for, the local population, baptised in groups by being tied to long poles and immersed in a pond, were sold as slaves.

In education the aim was to abolish the use of all other languages and give monopoly to the Russian language alone.

In the economic sphere, Tzarism showed a greed towards the 'Resources' of the land and carried away all the 'Resources' to the Moscow region, where alone they permitted industries to be started. This dual policy of economic exploitation and cultural oppression made the word 'Russian' synonymous with 'oppressor.'

Moreover to keep the nationalities weak and without unity, the Tzarist Government scrupulously followed the policy of 'divide and rule' and stirred up feuds between its subject people setting up the Mohammadan against the Christian and the Christian against the Jew.

When Tzarism collapsed, the Soviets were faced with a stupendous problem, that of reconciling the warring nationalities and meeting their demands and aspirations. The tremendous advance made under the present regime in these regions is the result of an extremely well thought out, thoroughly discussed and skilfully executed policy. We may not assert that the Russians have discovered the perfect solution of this complex problem. But without any hesitation we may say that they have hit upon a very reasonable and successful policy based on toleration and recognition of the rights of nationalities.

In the early days of Party building, theoretical verbiage shrouded administrative policies. Allegiance to the international idea was always held in the limelight. Much debate and lot of theory was utilised for supporting or rejecting the claims of minorities. The opponents of minority claims attacked such claims as survivals of bourgeois opportunism and tried to demonstrate that it was non-proletarian.

Amidst the welter of this controversy emerged an important book and it was written by a very important man. Stalin wrote the exhaustive book on this question in 1913. He himself was a member of a minority within a minority and had firsthand knowledge of this problem. He made a detailed Marxian study of this problem. The present day policy is practically shaped out of the pages of this book. He traced the idea of nationality to a bourgeois source but

claimed that it had to be respected as long as it lasted. He also conceded that the problem was complex, not identical in every case and so admitted that variable degrees of adjustment were inevitable. He opposed the absurdly simple, liberal solution of granting protective institutions to each nationality separately. He did not favour the recognition of nationality without a territorial basis—the Jews who were such had to be absorbed by the local populations. He favoured complete equality and cultural autonomy for definite territorial units. He stood for tolerance but was expressly against perpetuating backward cultures under that label. He emphasised that it was the work of the party to agitate against all backwardness, bad institutions etc., and to resist whatever was contrary to proletarian interests. He warned the Trade Unions and Party Organizations to maintain the internationalist ideal.

As early as 1913 the Party Congress declared in favour of the right of secession to Nationalities. The resolution also provided for the territorial autonomy and the right to use the local language. This step was a very great impetus for these minorities to join on the side of the Revolution. In 1917 the International Congress announced the equality and sovereignty of the peoples of Russia and their right to self-determination and secession. The spirit behind this has been expounded by Lenin. "The aim of Socialism is not only to abolish the present fragmentation of mankind into small states and all national isolation, not only to bring the nations closer to each other, but also to merge them.....Just as mankind can achieve the abolition of classes only through the transition period of the dictatorship of the oppressed class, so mankind can achieve the inevitable merging of nations only through the transition period of complete liberation of all the oppressed nations, i.e., their freedom to secede....." (Lenin, *"The Social Revolution and the Right of Nations of Self-Determination."*).

The right of secession, therefore, is a very important feature of Soviet 'National Policy'. It has been passed by all the Congresses. Yet the right has never been made use of. It has not resulted in the disintegration of Soviet Russia. This is due to the peculiar conditions that prevail in the Socialist State. There is a strong influence wielded by the Communist Party organization in favour of unity. The Party influence is so extensive that there is no popular sentiment on the side of the Separatist tendency. Every influence that reaches the citizens, that consciously or unconsciously shapes the opinion of the masses, is markedly on the side of union as against secession. The right exists as a theoretical concession to the sentiment of Nationality. But to attempt to bolster up this claim and push it into an inconvenient length would be to allow oneself to be classed as a counter-revolutionary. In 1920 Stalin wrote that the claim of absolute independence for smaller nationalities in Russia was an illusion. He admitted that they had an inalienable right of separation. But it was counter-revolutionary and was opposed to the interests of the masses. Hence, provincial autonomy with wide variations of form and scope was suggested as the ideal solution.

Moreover, the need for secession in the case of any nationality has not arisen because the Communists have recognised their right claims, granted them concessions and

have created immense opportunities for them to develop and march along the path to become the enlightened builders of Socialism.

A remarkable feature of this modern policy is that it aims constantly at progress and advancement. The policy is a positive conception of equality and liberty. It is not a negative policy of 'non-interference'; of perpetuating or prolonging the life of old, worn-out and absurd forms of social organizations under the cover of these concepts. A negative policy would be sterile and even actually harmful specially with respect to backward cultures since they would stagnate sooner or later. As Prof. Laski puts it, the law that the Lord as well as the houseless should not sleep on the pavement may be theoretically perfect but it results, in actual practice, to deny sleep to the houseless while it can never concern the Lord in any way. True equality and liberty are not negative, but positive. Equality means the creation of equal opportunities. In the positive policy practised at present, therefore, there is a conscious levelling up process. It is an active policy of providing or creating equal opportunity for all the nationalities, to raise themselves to a higher level. If the culture happens to be very backward and primitive, greater care is taken to raise it, and greater facilities are created. Every culture has to raise itself to higher and higher levels and no standstill is allowed.

This policy of constructive levelling up is defined in the Resolution of the 12th Conference of the Russian Communist Party in 1923 :

"The legal national equality achieved by the October Revolution is a great gain for the people but it does not solve the whole national problem. A number of republics of peoples which have not passed or have only to a small extent passed, through the stage of capitalism, which have no proletariat or have only a very small proletariat and which accordingly are economically and culturally backward, are not in a position to make full use of the rights and opportunities conferred on them by national equality, and are unable to rise to a higher level of development and thus overtake the more advanced nations without effective and prolonged outside help. The causes of this actual inequality lie not only in the history of these nations but also in the policy of the Tzarist government of the Russian bourgeois whose endeavour it was to transform the outlying provinces exclusively into sources of raw materials, exploited by the industrially developed central region. It is impossible to abolish this inequality and eradicate this heritage in a short period in one or two years. But abolished it must be. And it can be abolished only by the Russian proletariat rendering effective and prolonged assistance to the backward nations of the Union in their economic and cultural advancement. This assistance must consist primarily in the adoption of a number of practical measures for the creation of industrial centres in the republics of nationalities, which were formerly subjected to oppression and in drawing the greatest possible number of the local population into this work. Firstly, this assistance must proceed side by side with the struggle of the labouring masses for the consolidation of their social position as against exploiting elements, both native and from outside. Unless this is done no hopes can be entertained of establishing proper and stable co-operation between the nations with a single federal state. Hence, the second im-

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mediate duty of our Party is to struggle for the abolition of the actual inequalities of nationalities and for raising the cultural and economic level of the backward nations."

Lenin, too, emphasised this point repeatedly :

"It is no exaggeration to say that at the present time the establishment of correct relations between our Russian Socialist Federated Soviet Republics and the people of Turkestan is of colossal, universal historical significance."

The Soviet ideal is that toleration does not mean any policy of 'masterly inactivity', that it is not made an excuse for backward and unworthy cultures to remain as they were. Moreover, primitive cultures are weeded out and not allowed to be exhibited to the museum frequenters, curiosity seekers or excused as providing material for anthropologists.

The aim of the Communist policy is the creation of healthy and willing members of the Socialist society. This means a hazardous task. It is an active construction and a dynamic process. It is a struggle. To this end is the whole apparatus of the Communist state directed. The weapons are education, press, pulpit, radio, films, literature, schools and theatres.

In the practical working out of the regional divisions, economic unity is also a consideration. Sometimes it has not coincided with the national boundaries ; some regions, in spite of national similarities, are divided on other considerations e.g., there are divisions like industrial and agricultural, nomads and settlers, mountaineers and plainsmen, Shias and Sunnis. There is, however, a genuine attempt to get rid of all causes of friction and jealousy between different nations, which may be contrasted with the deliberate fostering of national rivalries and animosities by the Tzarist regime.

Liberty is allowed in lingual matters to the fullest extent. Yet care is taken to see that no obstructive policy is encouraged. Most of these languages of Soviet Asiatic nationalities have no literature, apart from what is being fostered now. Hence Russian is made compulsory in all non-Russian Schools. Russian also serves as the *lingua franca* of the Soviet Union. Since most of the languages lack the content for higher education, it serves as the channel for higher education.

The theatre and the film are popular, powerful and potent sources of education in U.S.S.R. At one time, no other language but Russian was allowed on the stage. Today even the smallest nation has a theatre of its own. Film areas, too, are divided on the national basis.

In the Tzarist days it was a decided policy that no industries should be started in these regions ; but their raw materials alone were to be exploited. Now there is an active industrialisation of all provinces. The extension of industries, mechanisation of agriculture and elaboration of railways have thoroughly revolutionised these regions and transformed them from primitive areas to flourishing, advanced regions.

"We want a voluntary union of 'Nations'", said Lenin in his letter to the workers and peasants of the Ukraine in December 1919. "A union that would not tolerate any

oppression of one nation by another, a union based on the completest mutual confidence, on a clear consciousness of our brotherly unity, on a perfectly mutual agreement."

The ideal is nearly achieved in the Soviet Union. "The Revolution would not have triumphed in Russia, and Kolchak and Denikin would not have been crushed if the Russian proletariat did not have on its side the sympathies and the support of the oppressed people in the former Russian Empire," wrote Stalin in his 'National Question.' "But to win the sympathy and support of these people it had first of all to break the chain forged by the Russian imperialism and free the people from the yoke of national oppression. Without this it would have been impossible firmly to establish the Soviet power, to implant true internationalism and create the remarkable organisation for the collaboration of the nations which is called the Union of Soviet Socialist Republics and which is the living phototype of future union of nations in a single world economic system." (Stalin, *The National Question.*).

When the Soviet Union was formed, they were faced with the colossal dilemma of developing the national Soviet autonomous entities on the one hand and on the other, of strengthening and developing the might of the Empire into a Union by which alone they could hope to withstand the capitalist hostile world and which could be achieved only by a rigid centralisation. The two needs and forces, centralisation and decentralization seemed irreconcilably opposed. But harmony in actual practice was achieved. Under the Soviet system it has been finally demonstrated, that centralised democratic administration does not retard the development of national consciousness and culture. On the contrary, the Central Government rendered all possible help to the economically backward.

This deliberate development of nationhood can be seen at work in Central Asia where the disconnected Central Asiatic people were welded into nations. The progress can be realised from the fact that at the time of the formation of the U.S.S.R. (December 1922) there were four union republics, ten autonomous republics and 14 autonomous regions. In 1937, it consisted of 11 union republics, 22 autonomous republics and 9 autonomous regions and 10 national areas.

"Thus the forms of life of the Soviet nations were continuously changing. The numerous nationalities of the U.S.S.R. were undergoing their process of demarcation. Some nationalities defined their ethnological borders, while others arranged their affairs as already developed and fully moulded nations."

"It is the characteristic that this process, far from hindering, actually facilitated the growth of the Union as a whole. It seemed that as the national aspirations of the people were satisfied, they pressed still more closely towards union realising that only by unity would they be able to preserve their national freedom."

"The transformation of the national areas into autonomous region, autonomous regions into autonomous republic and of certain autonomous republics into Union Republics was the organizational and political reflection of the economic and cultural growth of the nations forming the Soviet Union. In its process of State

development, for example, the Kirghiz nation passed through all the forms of Soviet autonomy beginning as an autonomous region in 1924, becoming an autonomous republic in 1926, and finally reaching the state of a Union Soviet Socialist Republic in 1936." (*Twentieth Anniversary of the Formation of the Soviet Union—S.S.*)

The final word on the Soviet national policy and practice is of course uttered by Stalin. In his report on the draft constitution of the U.S.S.R. at the extraordinary 8th Congress of the Soviets, November-December 1936, Stalin said, " Bourgeois constitutions proceed from the premises that nations and races cannot have equal rights : that there are nations with full rights and nations without full rights and that in addition there is a third category of nation or race, for example, the colonies which have even fewer rights than a nation without full rights. This means that at bottom all these constitutions are nationalistic, i.e., constitutions of Ruling Nations. "

" Unlike these constitutions, the draft of the new constitution of the U.S.S.R. is, on the contrary, profoundly internationalistic. It proceeds from the proposition that all nations and races have equal rights. It proceeds from the fact that neither differences in colour, language, cultural level or level of political development, nor any other difference between nations and races can serve as grounds for justifying national inequality of rights. It proceeds from the proposition that all nations and races irrespective of their past and present position, irrespective of their strength or weakness should enjoy equal rights in all spheres of economic, social, political and cultural life of society."—(STALIN.)

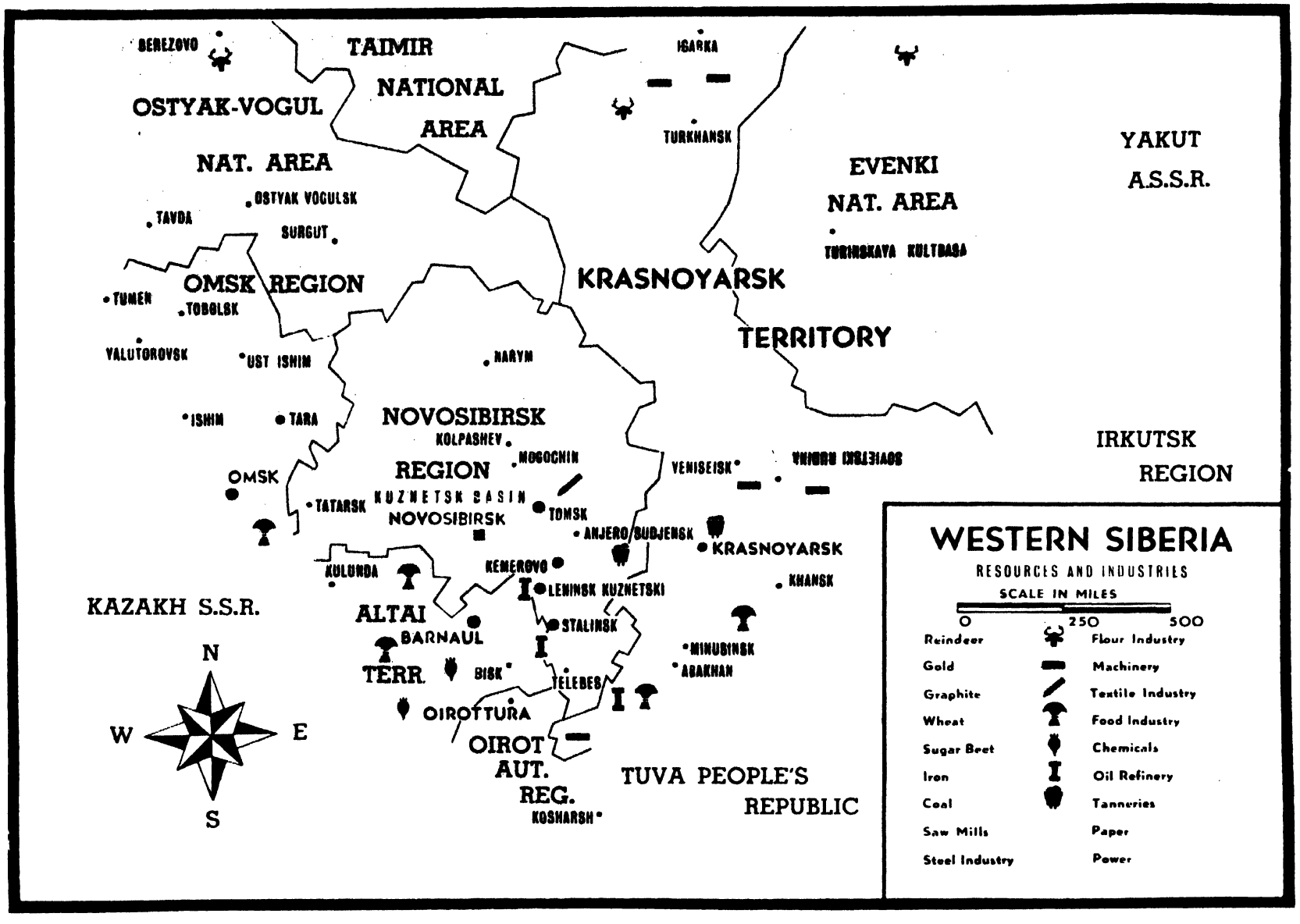
CHAPTER IV

THE POLITICAL STRUCTURE

NATIONAL IN FORM

THE Union of Soviet Socialist Republics is according to article 13 of Stalin constitution a " federal state formed on the basis of voluntary association of Soviet Socialist Republics having equal rights. " This federal state consists of 16 Union republics and six of them are in Soviet Asia. They are : 1. The Asiatic part of the Russian Soviet Federated Socialist Republic which consists of all Northern Asia along and north of the Trans-Siberian Railway ; 2. The Kazakh ; 3. The Uzbek ; 4. Tadjik ; 5. The Turkmen ; 6. The Kirghiz Republics.

Where the area comprising the nationality is not large enough there they are organised into Autonomous Republics, National Regions or Territories. For example, in


BEREZOVO
TAIMIR
NATIONAL
AREA
IGARKA
OSTYAK-VOGUL
NAT. AREA
TURUKHANSK
YAKUT
A.S.S.R.
EVENKI
NAT. AREA
OSTYAK VOGULSK
TAVDA
SURGUT
TURUKHANSKAYA KULTBASA
OMSK REGION
KRASNOYARSK
TERRITORY
TUMEN
TOBOLSK
YALUTOROVSK
UST ISHIM
NARYM
IRKUTSK
REGION
ISHIM
TARA
NOVOSIBIRSK
KOLPASHEV
MOGOCHIN
REGION
YENISEISK
OMSK
TATARSK
KUZNETSK BASIN
NOVOSIBIRSK
TOMSK
ANJERO/SUDJENSK
KRASNOYARSK
KULUNDA
KEMEROVO
LENINSK KUZNETSKI
KHANSK
KAZAKH S.S.R.
ALTAI
STALINSK
BARNAUL
MINUSINSK
ABAKHAN
TERR.
BISK
TELEBES
OIROTTURA
OIROT
AUT.
REG.
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RESOURCES AND INDUSTRIES
SCALE IN MILES
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Graphite
Wheat
Sugar Beet
Iron
Coal
Saw Mills
Steel Industry
Flour Industry
Machinery
Textile Industry
Food Industry
Chemicals
Oil Refinery
Tanneries
Paper
Power

The pride of her fields. Grapes abounding where once the desert reigned.

the Russian Soviet Federated Socialist Republic there are :

A. *Regions* : Sverdlovsk, Cheliabinsk, Omsk, Novosibrisk, Irkutsk, Chita.

B. *Territories* : The Altai, Krasnovarsk, Maritime, and Khabarovsk.

C. *Autonomous Republics* : Yakutia, Buryat-Mongolia.

D. *Autonomous Regions* : Jewish, Oirot, and Khakass regions.

Each of the six Union Republics has a constitution of its own and has the right to secede from the Federation. Recently the Republics have been invested with the right of maintaining their own independent army and conduct their own foreign relations.

Its territory is inviolable and, therefore, cannot be altered without its own consent. Every citizen of the Union republic is also a citizen of the U.S.S.R. and enjoys the full right of Soviet citizenship. There is complete equality as between the Union republics, and each is counted as a unit irrespective of its size and stage of development. As between the citizens, too, there is absolute equality and the constitution provides that the equality of the rights of the citizens of the U.S.S.R. irrespective of their nationality or race in all spheres of economic, state, cultural, social and political life, is an indefeasible law. "Any direct or indirect restriction of the rights of or conversely any establishment of direct or indirect privileges for citizens on account of their race or nationality as well as any advocacy of racial or national exclusiveness or hatred and contempt is punishable by law."

Union Republics have a government consisting of one Chamber called the Supreme Soviet. The members of the Soviet are elected for four years. The government of the Union of Soviet Socialist Republics consists of two Chambers :—

1. The Soviet of the Union.

2. The Soviet of the Nationalities.

While members for the Soviet of the Union are elected on the basis of one deputy for every three hundred thousand citizens, the members of the Soviet of the Nationalities are elected from the Union and autonomous republics and regions and national areas on the basis of 25 deputies from each Union and autonomous republic, five deputies from each autonomous region, and one deputy from each national area. Both the Chambers have an equal right to initiate legislation which becomes law when passed by a simple majority vote.

Between sessions of the Chambers executive power is vested in the Presidium of the Supreme Soviet which is elected at a joint meeting of both the Chambers and consists of a president, one vice-president for each Union Republic, a secretary, and twenty four members.

Each Union Republic exercises authority independently and the U.S.S.R. protects the sovereign rights of the Union Republics.

It can be seen from the provisions of the constitution that absolute equality is assumed as between the Republics, and today remote Kirghizia as a Union Republic has the same representation as the most advanced Russian Socialist Soviet Federated Republic.

Like all other imperialisms it was the policy of the Tzarist Imperialism too to distinguish between nationalities, divide and foster national jealousies and thereby keep them weak and backward. Today the recognition of the national equality, the fostering of the notion that one nation is as good and important as any other nation has cut at the root of all national jealousies and released tremendous forces of good will as between nations. With the recognition of their independence and their right to secede, the constituent nationalities in Soviet Russia have come closer. Nationality which was once a disruptive factor in all oppressive multinational imperialist states has today become a synthesising force. The form is national but the spirit behind it is truly international.

CHAPTER V

SOCIALIST IN CONTENT

Economic and Cultural Development

IN the Tzarist days, the Asiatic regions had no history of economic development at all because there was a definite policy of hindering industrialisation of these regions. Whenever they found some raw material accidentally or without much trouble, they would rush it off to the Moscow region. So the whole history of economic development dates only from the Soviet regime and technically from the First Five-year plan. In the Asiatic regions, before revolution, people were either unsettled nomads or backward peasants who scratched the soil with primitive instruments and lived in eternal want and misery.

After the Revolution the Soviet Government had as its main theme the rapid industrialisation of the country. Lenin knew very well that the survival of Socialism demanded rapid industrialisation, transformation of the country from backward agricultural land to a land of modern industry, equipped with electrical power and developed natural resources. Lenin always identified Socialism with industry and electrification and visualised the transformation of "the sorry, pinched and starved nag bequeathed to us by an impoverished land where the vast majority is of peasant origin to the fine steed of large-scale industry, electrification and utilisation of water ways." (Lenin).

Stalin, too, echoes the same feeling. "Backward peo-

ples are beaten," wrote Stalin, " But we do not wish to be beaten. We have fallen behind the leading countries by fifty to hundred years. We must overcome this gap in ten years. Either we shall accomplish this or we shall be destroyed. " (Stalin) and the Soviets set about the industrialisation of the country with a grim determination. The main features of the policy of industrialisation, realised by the series of Five-Year Plans are :—

1. *Regionalisation and Localisation of Industry*. As opposed to the Tzarist method of plundering the available raw materials to favour selected industrial areas in European Russia and hindering the development in Asiatic parts, the Soviets made it a policy to establish industries wherever raw material was available. Instead of the materials going to the works as in previous times, it is now the works that go to the materials. For example, the cotton of Central Asia was, in Tzarist times, being exported over to Moscow industrial region, to be converted into cloth. Now innumerable cotton mills have been established in Central Asia itself.

2. *Systematic Search for Minerals*. During Tzarist times the mineral resources were very badly neglected. The Soviets, on the other hand, have made it a point to search every region thoroughly. They have undertaken surveys of all available regions for mineral resources and wherever available they have exploited them. New coalfields and vast deposits of metals like copper, lead, zinc, and even rare metals like platinum have been unearthed. Thus we see between 1928-37 a remarkable increase in coal production in Siberia and Kazakhstan. The discovery of new mineral resources meant inevitably the establishment of industries based on them.

It was the coal of Kuznetsk that enabled the remarkable industrial development in the Urals. Vast copper smelting plants have sprung up wherever copper has been mined. Kazakhstan has been rapidly industrialised consequent on the discovery of Karaganda coal fields.

3. *Development of Communications* : Even with the discovery of raw materials industrial development would not have been possible if the development of transport and communication facilities had not kept pace with it. Russia itself was one of the most backward countries in matters of transportation and Asia was the most neglected part of it. The development of communications, therefore, assumed special significance since the very success of industrialisation depended on this. Vast schemes of transportation development have, therefore, been conceived. A network of road, rail and river communications has been spread and to-day with the aid of wireless and airplane, the most inaccessible parts of Asia have been brought within easy reach. Space and time have been truly annihilated. This tremendous development of transport facilities has, in its turn, facilitated further industrialisation of these areas.

4. *Planning for Defence*. The Soviets, living in a " hostile capitalistic world " had always feared a possible invasion. They, therefore, strove to equip themselves with all the modern weapons that would enable them to withstand any invasion. Suitable location of defence industries from the strategic point of view was an important feature of their programme. Thus the Soviet leaders

realised the possibility of Ukraine and Donetz basins falling under enemy occupation. They, therefore, conceived the plan of creating alternative industrial bases. The inaccessible regions of the Urals have been deliberately developed as a mighty base. So was Siberia, for it was beyond the reach of the invader, either from the west or the east, being tucked away in the far off interior.

Stalin warned his countrymen so long ago as in 1931 : "The history of old Russia is the history of defeats due to backwardness. She was beaten by Mongol Khans, by the Turkish beys, by the Swedish feudal barons, by the Polish-Lithuanian squires, by the Anglo-French capitalists, by the Japanese barons. All beat her for her backwardness—for military backwardness, for industrial backwardness, for agricultural backwardness. She was beaten because to beat her was profitable and could be done with impunity."

"That is why we must no longer be backward. . . . . Do you want our Socialist Fatherland to be beaten and lose its independence ? If not, you must put an end to this backwardness as speedily as possible and build a genuinely Socialist system of economy."

5. *Development of Skilled Technical Labour.* Another important feature of Soviet industrial planning is to aim not merely at material production but to produce the skilled labour personnel and technicians as well in the process. The Soviets had not only to build but had to learn while building. They had to build a new civilised community of modern skilled men and technicians. Today the whole community is flooded with scientists, engineers and a vast army of skilled workers and technicians in every branch of industry. This transformation was achieved by providing ample opportunities to the people to 'smash up' the machine if necessary and get a first-hand working knowledge of the machines. It entailed a very heavy breakage and destruction of valuable machinery purchased from America in exchange for their very sorely needed wheat, butter and other food stuffs. They bore this sacrifice bravely. The innumerable wrecked tractors were a pitiful sight. Yet, it is this policy that transformed the backward people into a machine-minded nation and to-day the success of the Red Army against the most highly mechanised army in history has been made possible.

In no other country is the use of film in advancing technical education so adroitly made as in Soviet Russia. "This is the movie that combines art with science. Full-length pictures in sound and colour are produced to explain in striking fashion the technical secrets of everything from industries like watchmaking to the function of organs in the living body. Looking at beautiful moving pictures, engineering students learn how aeroplanes are assembled. Farmers are taught the secrets of stock breeding. Surgeons study slow-motion films of delicate operations. The whole Soviet population accepted such highly technical film subjects with great enthusiasm, and many hundreds of titles are now in circulation. Visual education on anything like this scale is quite unknown in other countries." (*R. S. W.*)

Collectivisation

This wholesale industrialisation of the country meant also the feeding of the whole army of industrial workers.

The primitive and wasteful methods of cultivation would not have provided enough food and collectivisation was discovered to be the only efficient method by which the primitive agriculture could be transformed into modern scientific and mechanical arming. Collectivisation, therefore, has become the most important feature of the development of agriculture. In collectivisation, machine tractor stations have played a very important part. They have provided not merely the tractors and other machinery required but also facilities of expert advice from agronomists etc. Over a very large sphere of agriculture, machine has replaced human labour.

Siberia as Granary of The East

The foresight of the Soviet authorities in developing Siberia as a vast agricultural enterprise was amply repaid when their western territories fell under the blight of modern war. Prof. Nenchinov, Member of the Lenin Agricultural Academy, records how the temporary loss of the farming regions in western Russia, particularly in the Ukraine, was compensated in 1940 by the eastern regions sowing 1,000,000 hectars more than in 1940. Two years afterwards, they yielded crop grown in an additional two and half million hectars. During five years of the war, the area sown has steadily increased, reaching the phenomenal total of 5,000,000 hectars of virgin and unused land. This was indeed a stupendous task. Directors of the collective farms in Kazakhstan, the Urals and Siberia had to put in a mighty effort before their lands yielded the first harvest of rubber-bearing plants and sugar beet. Very soon thousands of grain machines were being adapted for work on these sugar beet plantations. At present, the area under sugar beet in eastern regions is almost two and half times more than the 1940 figure.

As regards another commodity of vital importance, cotton, not only is the turnover here increased but in Uzbekistan, areas, which primarily produced cotton, are now raising grain crops in quantities sufficient to meet their own needs and sometimes to export such crops to other republics. The astonishing part of the whole enterprise is that this is done in spite of the absence, on war service, of a large number of men. Women have taken their place. They have shown great skill in tending the agricultural machinery. They have managed the tractors. When there were not enough tractors and horses, they have harnessed the cows to the plough. No field is left untilled and unsown.

"Heartland"

In fact the Soviet authorities, only a few years after the October Revolution, appeared to have understood fully the deep significance of the wise warning that a leading British geographer, Sir Halford Mackinder, gave to his countrymen shortly after the peace of Versailles. He wished England to remember that, although she and her allies had won the war she might easily lose the next, unless British statesmanship realised in whose hands would remain the ultimate power. He regarded the continents of Europe, Asia and Africa as forming a "world island." In Mackinder's opinion, this huge island had a pivotal spot ; its very heartland. This core, whose possession

would be most prized, was the tract across northern Russia and Siberia. Whichever power holds this, commands the premier position in the world.

This view was on similar lines as the views generally classed as Geopolitics, which Dr. Karl Haushoffer, a German officer turned scientist, was propounding at that time. Years passed but in no nation was the practical advantage of a study of strategic geography so adequately made as in Soviet Russia. In fact, the Soviet authorities, so early as in 1920, seem to have realised the deep gravity of Mackinder's observation, when on one occasion he emphasised the point that the power in possession of eastern Europe commanded the heartland. This in his view meant the possession of the "world island." And he said, "Whoever has the world island rules the world." The development of Soviet Asia to-day shows that Russian strategy is determined to make use of the heartland to the fullest extent. It could afford to laugh evidently when at one of the party conferences at Nurenberg, Hitler had wistfully announced what an excellent thing it would be if Germany controlled the forests of Siberia, the wheat fields of the Ukraine and the inexhaustible mineral resources of the Urals.

The very raison d'être of this volume is to make our countrymen realise how determined the directors of Soviet economy have been to develop this "heartland." It has proved for Russia a bulwark against aggression and against famine.

Industrialisation has meant not merely the increase of population but the increase of urban population relative to rural population. This has created complex problems of building modern planned towns and cities. Since concentration of huge populations around big plants was inevitable, planning the industrial town also became a necessity. Industries and towns are not allowed to grow haphazard but are built on modern lines—with large beautiful dwellings, municipal car system, electric lighting, running water, sewage disposal, postal, telegraphic and telephonic conveniences. The evils of industrialisation, that were rampant in countries like England and America during the ages of their industrial expansion, were completely avoided.

One other feature of Soviet economic development may also be noted. The more backward an area, the greater were the facilities that were created for it to develop. There was a deliberate encouragement for people from advanced parts to go and settle and help the backward areas.

All this progress, as has been well known, was achieved through planning. Planning, however, did not mean that a centrally conceived plan was tyrannically enforced on an unwilling population.

The embryo plan was subjected to a thorough scrutiny in the factories and collective farms and it was completely thrashed out in all its aspects. Then only was it adopted. Not merely had the people a voice in shaping the plans, but they were invited to and they did enthusiastically respond, to co-operate and carry the plans to successful execution. The Stakhonovite movement was the supreme expression of this popular co-operation.

There have so far been three Five-Year Plans. The

first aimed at the establishment of heavy industry and the creation of capital goods so that the Soviet Union could be self-sufficient for her industrial needs. During the Second Five-Year Plan, the emphasis shifted on to the production of consumers' goods.

During the Third Five-Year Plan, attempts were made to correct certain lopsided developments especially with regard to the size of the plants. During the first two plans only very huge plants were constructed, but in the third plan provision was made for small and medium sized industries wherever and whenever possible.

Before the Third Plan could finally be realised, war broke out. The most important development during this war period was the transplantation or the bodily removal of vital industries from threatened areas to the interior. From the whole of Ukraine and Donetz basin, industries and plants were saved from the enemy and moved on to safer regions and to-day notwithstanding enemy occupation of these regions, the output has not suffered. It is on record that even on the first day on which the newly moved factory settled down the production was in full swing ; for the factory moved with its entire equipment including its labour personnel.

To-day it is the needs of war that claim the prime attention of innumerable factories in Siberia, Urals and Central Asia. Factories which have sprung up during these Five-Year Plans are the backbone of the industrial might of Russia which have enabled the country to withstand the onslaught of the enemy and has carried the Union forward to Victory.

Cultural Development

Real cultural development is possible only in a society which has settled down in a region permanently. So the problem of cultural development in backward areas of Soviet Asia first meant the problem of making the nomads settle down. Great success has been achieved in this direction and settlement has inevitably preceded all the ensuing cultural development. Innumerable people, who had been only nomads, have been induced to settle down and set on the way to develop a distinctive culture of their own.

The Kazakhs at one time were only wandering, warring tribes. Now they are not only a settled nation but have created a full-blown culture of their own, with all its adjuncts including the theatre. Transformation from nomadic life to a settled life was not all smooth sailing. Habits and prejudices accumulated over centuries had to be weeded out and a fresh outlook had to be induced.

An insight into the nature of this problem can be had from the following example : The Ketus were a wandering tribe. They spent most of their summers fishing in the rivers and their winter trapping fur-bearing animals in the forests. The twenty-five year old Evan Tiganov, the Chairman of the Ketus, approached the secretary of the Communist Party of the 'Krasnoyarsk territorial committee.'

" What do your people need to improve life ? " asked the secretary.

" We need to develop a settled life, " replied Tiganov.

"Why there?" asked the leader.

"Because at Somai there is a store where we can buy all we need," replied the nomad.

"Do your people really want to settle or is there just talk about settling?"

"The people would like to settle. It is hard on the children when we wander from place to place. Three of the seven children born among us last year died."

"Can't you apply to the Solomai Soviet for permission to occupy land near the village? There is plenty of vacant land. Why don't you just occupy it?" asked the party leader.

"We don't know how to settle. We can't build houses."

"You should build peasant huts. Timber is plentiful. You just need to chop it down."

"We need help in building houses," replied Tiganov.

The party secretary immediately found out from one of his experts how much a standard house would cost, and learnt that there was a carpenter who might assist the nomads to erect a settlement.

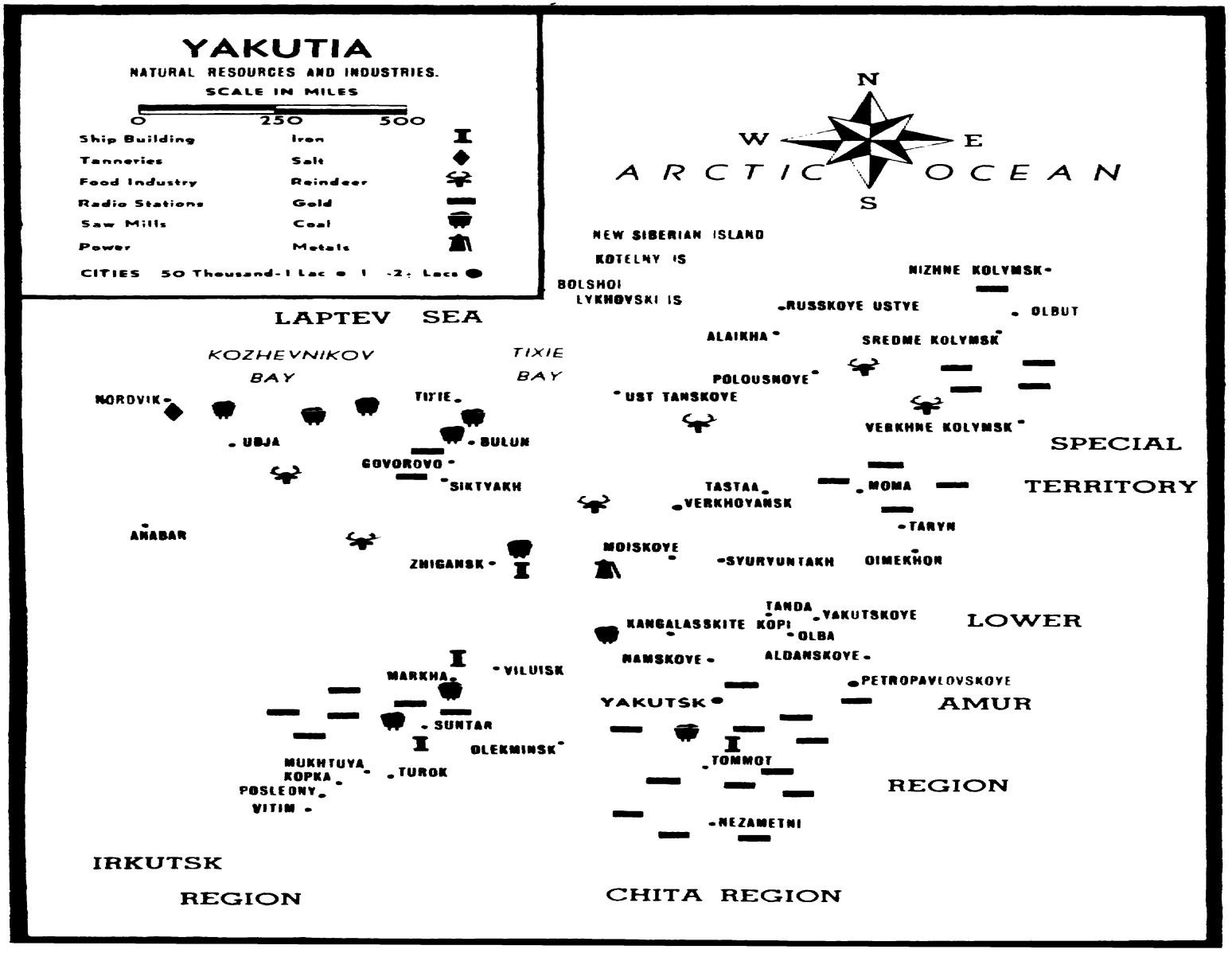
"If your people really want to settle we shall make it possible for them to do so," he concluded, and in this direct manner the 'business' was arranged. (*S. A.*)

have any alphabet or written language. To raise them to a higher level of knowledge was the only weapon and it could not be imparted either, without the written language. Therefore, development of script assumed primary importance. This task was taken up by the Soviets for immediate solution. Scripts were formed. Innumerable books were written in local languages. The enrichment of local literatures was achieved by translations from world's literatures. Schools were started in every region and illiteracy has almost been liquidated. Opportunities are provided to the most backward for advanced and technical education.

The active encouragement for the development of local languages and literatures does not, however, mean the neglecting of the Russian language. In fact, Russian has been developed as the *lingua franca* of the Soviet Union and has been a cementing force. Many of the local languages have not the content for higher and modern scientific education, and Russian therefore cannot be displaced. The spread of education has been universal and primary education is everywhere naturally in the local language. Technical education, too, is very widespread and Russian is the natural medium of instruction. Industrialisation could not have succeeded, if the Soviets had not at the same time produced technicians to take charge of the industries.

New Cities

Industrialisation has also resulted in a tremendous growth of cities, new and old, and consequently of urban


YAKUTIA
NATURAL RESOURCES AND INDUSTRIES.
SCALE IN MILES
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Food Industry
Radio Stations
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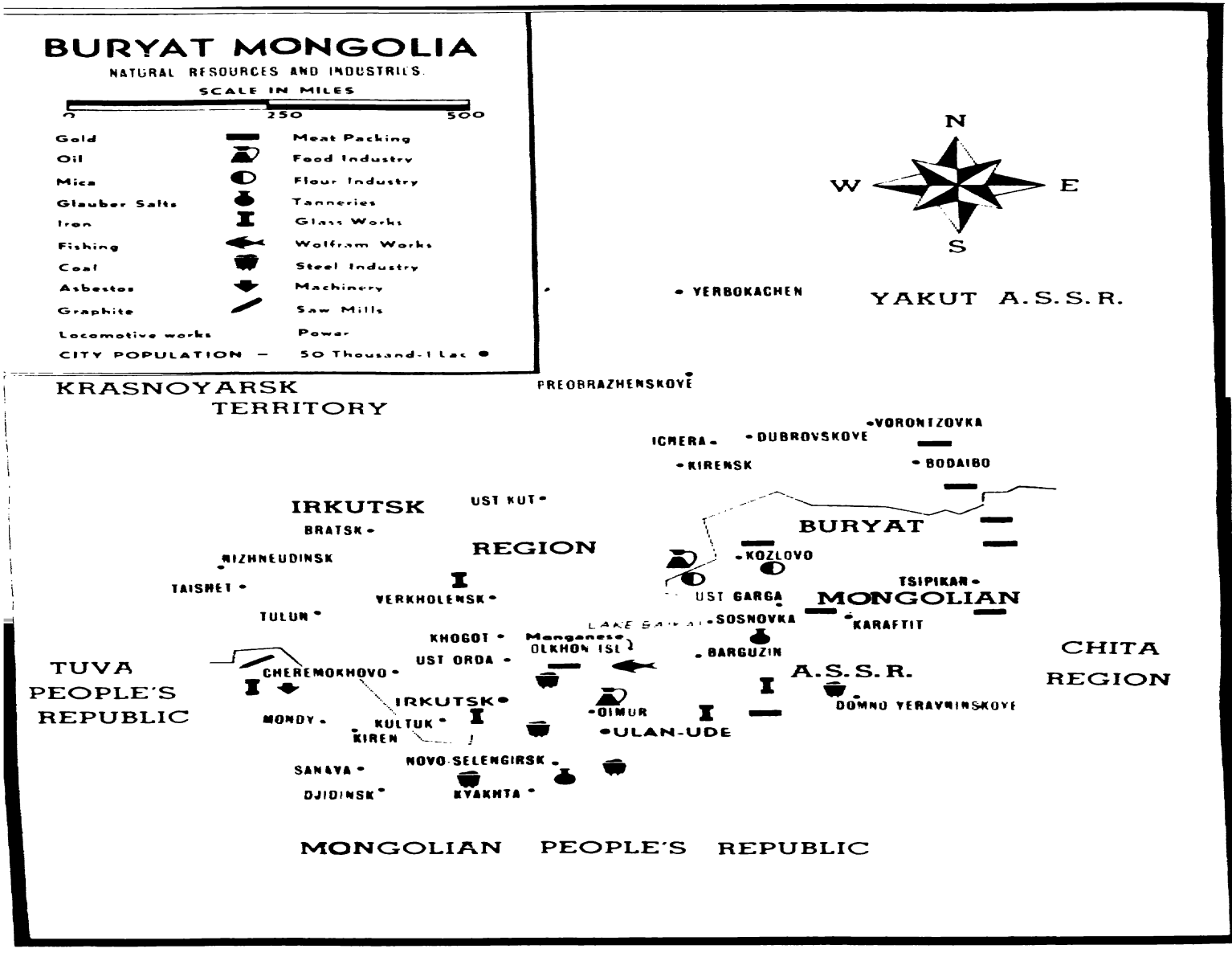
BURYAT MONGOLIA
NATURAL RESOURCES AND INDUSTRIES
SCALE IN MILES
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Gold
Oil
Mica
Glauber Salts
Iron
Fishing
Coal
Asbestos
Graphite
Locomotive works
Meat Packing
Food Industry
Flour Industry
Tanneries
Glass Works
Wolfram Works
Steel Industry
Machinery
Saw Mills
Power
CITY POPULATION — 50 Thousand-1 Lac
N
W
E
S
YERBOKACHEN
YAKUT A.S.S.R.
KRASNOYARSK TERRITORY
PREOBRAZHENSKOYE
VORONTZOVKA
ICHERA
DUBROVSKOYE
KIRENSK
BODAIBO
IRKUTSK
UST KUT
BRATSK
REGION
BURYAT
NIZHNEUDINSK
KOZLOVO
TAISHET
VERKHOLENSK
TSIPIKAN
UST GARGA
MONGOLIAN
TULUN
LAKE BAIKAL
SOSNOVKA
KARAFTIT
KHOGOT
Manganese
OLKHON ISL.
BARGUZIN
CHITA
TUVA
UST ORDA
A.S.S.R.
REGION
CHEREMOKHOVO
PEOPLE'S
IRKUTSK
DOMNO YERAVNINSKOYE
REPUBLIC
MONDY
KULTUK
OIMUR
KIREN
ULAN-UDE
NOVO-SELENGIRSK
SANAYA
DJIDINSK
KYAKHTA
MONGOLIAN PEOPLE'S REPUBLIC

population. The new cities that have been developed have all been planned cities. Wherever a factory has been built it was not a bare factory, but provision for the workers' welfare was made as well. New industrial cities have, therefore, developed with well built apartment-houses, municipal services, sporting facilities and welfare centres.

One such new city is Stalinabad, the capital of Tadjikistan. In 1926 its foundations were laid. "It started with nothing, no population, no materials, no skilled workers and about 300 kilometers from the nearest railway. Timber had to be brought from Urals in the north. Rail road was extended to the site of projected Stalinabad and within three years Stalinabad began growing at a tremendous pace. One official building after another rose : post and telegraph, the Red Army club, the Commissariat of Education, the Hospital, the Tropical Institute, the Municipal Building, the State Publishing House, various schools and dormitories, electric power station, electric flour mill, a silk factory, an electric bakery, a state theatre, a cinema laboratory, and many standard houses accommodating thousands of workers. It boasts of a radio broadcasting system, a beautifully kept park and a well-equipped aerodrome" *(D. O. S.)*.

Smaller villages, too, have shared in this tremendous development and the Soviet system has been able finally to rescue the people from what Lenin once called the 'idiocy of village life'. The village of Shushenskoye typifies the development that has taken place. This village has of course an additional distinction. Lenin spent three years of his exile in this village and married Krupskaya. When Lenin lived, it was a ramshackle village with no conveniences. To-day, it has become a village with all modern amenities. There are elementary and secondary schools in fine buildings, a district agricultural school, a modern hospital and a consulting clinic for women and children.

The village is linked by telephone and radio. A beautiful motor road connects it to the district town of Minusinsk. In addition there is an air mail service ! This is in the heart of Siberia which under the Tzars was thought to be only a fit place for criminals and exiles.

Looking after the welfare of the workers and the people was deliberately assumed by the State. Stalin is reported to have remarked : "Of all the world's capital the most valuable capital is people." Taking care of the health of the people has become a marked feature of Soviet administration. Soviet medicine has reached every nook and corner. Every large establishment has its own hospitals, health resorts and rest places. Research institutions have been established to investigate and develop every branch of medicine.

The tremendous exploitation of resources and material development has not meant any neglect of arts. As a matter of fact art, freed from commercial domination, recovered its vitality and the local peoples of Soviet Asia have shared in this outburst of cultural development.

Social Reforms

The development of national theatres is the supreme example. There was a time when Russian alone was tolerated on the stage. Today even the nomads of the

Arctic have theatres of their own, while innumerable theatres travel to the Arctic and cater to their needs.

But the most revolutionary development has been the emancipation of women. Khoziah, a woman social worker in Tadjikistan, relates how careful they have to be in their campaign of women's emancipation. Often the first woman in a village to unveil determines the whole course of the movement in the locality. "If she is took weak, she compromises the whole idea of unveiling. For in the eyes of the village, she is a loose woman, a slut.... 'The Bolsheiviki are turning our women into harlots', the enemies whisper. Unless we are absolutely sure that the woman has enough character and intelligence to assume the responsibilities of a pioneer we actually go to the length of discouraging her, we try to put a brake on impetuous decisions..... In dealing with cultural and psychological superstructures we often resort to 'fabian tactics'. By opening silk and textile factories, by opening cotton ginneries ..... we lure the woman out of her seclusion, gradually but irretrievably. Four or five weeks in the factory do marvels for the woman. And the man's objections and jealous fears subside, too, when he discovers that his wife's earnings add considerably to his family income. Also by encouraging collectivisation of agriculture, we enhance the process of woman's emancipation" (*D. O. S.*). Revolution brought freedom even to Russian women. To the women of Soviet Asia it brought release from age-long oppression. In Central Asia, especially, the Muhammedan influence with its harem and the purdah (*puranja* in the local parlance) was stifling. The revolution abolished polygamy, purchase of wives, and the purdah. The reforms were not achieved without bitter struggle. "In the remoter places brave girls who tried to further these reforms as late as 1928 were tortured and slain. Inevitably they were first raped, frequently by members of their own family connection. In one case a girl having been so treated was cut into small pieces and delivered home in a cart" (*N. S. T.*).

But gradually the struggle was won. By 1938 in Uzbekistan alone there were over 40,000 women working in factories, offices and on collective farms. And, to-day, they are in the forefront of every activity. "If you seek advice on any matter go first to the Mulla. Should he not assist you, go to your father. If he offer not good counsels go to your uncle and so on until if all else fail you, even your horse, then go to your women folk but whatever they tell you be certain to do the opposite" was the advice given by the old Mullahs. To-day the women are admitted in the highest councils on an equal footing with men.

The birth of a girl was, formerly, considered a calamity. A girl some day or other had to be given away in marriage and marriage meant :

> "If you drop a stone in a deep well
> It will sink to the bottom, mother dear.
> If you give your daughter to strangers
> She will sob her heart out and die"

was the song of the Uzbek women. Today they have taken their rightful place in the life of the country and the whole of Central Asia is quivering with a new life. The women

of Soviet Asia have now joined up in the passionate defence of their fatherland which freed them from bondage

The Urals

If the teacher asks you where a certain mineral is to be found and you do not know just point the finger at the Urals You are bound to be right — There is everything there "

The Urals represent such a combination of wealth as cannot be found in any other country *Joseph Stalin on the debates on the introduction of the First Five Year Plan*

Our industry, like our national economy rests in the main on our coal and metallurgical base in the Ukraine Our task is this that while continuing to develop this base in every possible way for the future we must at the same time begin to create a second coal and metallurgical base This must be the Urals Kuznetsk combine the combination of Kuznetsk coking coal with the ores of Urals *Stalin in his report to the party Congress* in 1930

The Urals have always been known as a region rich in mineral deposits It has copper zinc iron lead, silver aluminium gold platinum, coal oil and precious stones

For more than three centuries, is a matter of fact Urals have been serving as the inner bastion of Russian defence Peter the Great, from whom the Soviets have learnt many a lesson, recognised the importance of this region

But it was the Soviets who "foreseeing the practical certainty of war against Soviet Union made the development of Ural industries a cardinal tenet of their creed The Soviets realised that new industries should be developed as farther away as possible from the Western frontier When Denikin had reached Orel during the Civil Wars Lenin planned to withdraw altogether with the Soviet government to the Urals to continue the struggle from there He recognised that time would come again when the great mountain barriers of the Urals with its enormous untapped wealth would be needed as a great defence base for socialised Soviet Union The plan to create an eastern defence industry in self-contained duplication of western industries was Lenin's legacy to the leaders of the Soviet State The First and Second Five-Year Plans laid the foundations of the Urals war industries The Third Plan which the German invasion interrupted witnessed the fulfilling not only of an economic plan but also its function in the grand strategy of Soviet Union (*H R P*)

Mineral Wealth

In the Sverdlovsk and Chelyabinsk regions which have been heavily industrialised are found the most essential minerals Iron is present throughout the entire range of the mountains At Khabov there are chrome nickel and iron ore deposits To the north-west are Zigazinsk deposits and Bakal deposits At Kusinsk titanium and magnetites are mined In addition to iron ores and vanadium for high grade steel production are also being manufactured in Urals The deposits in Urals are not deep and being

found close to the surface of the earth, their extraction is easy and inexpensive.

South of Sverdlovsk are rich deposits of copper and nickel. There are vast sources of bauxite at Nadezhdinsk, Alapayevsk and Kamensk. The world's chief source of platinum lies in the north. Gold is available in plenty all over.

But before the mineral deposits could be profitably exploited by the erection of heavy industries, the problem of supplying coal from near about had to be solved. In Western Siberia, 1250 miles from the Urals, rich deposits of coal were discovered and the "problem which Lenin set the Soviet people to solve and which under the direction of Stalin they succeeded in answering was to link up the Kuznetsk coal basin with the Urals ore base of Mount Magnitnaya. This was the task of the two Five-Year Plans. The problem was solved and Russia's second war base has been established. At Mount Magnitnaya, the site of the greatest iron ore deposits in the Urals, the largest iron and steel works in Europe have been built using Kuznetsk coal : at the other end, at the source of Kuznetsk coal, the Stalin Iron and Steel Works have been built using Magnitogorsk iron ore. Day and night freight trains loaded with coal from Siberia arrive at Magnitogorsk : Day and night freight trains carry ore back to the Kuzbas" (*H. R. P.*).

After a time coal was discovered at Karaganda in Kazakhstan and this, too, has been linked up with the Urals, so that Kuzbas-Urals-Karaganda region has become a vast industrial area and has come to represent the power behind the U.S.S.R.

However, it was mainly based on the Kuzbas deposits that heavy industries have been developed in the Urals area and the main industrial regions are : Sverdlovsk and Cheliabinsk, having a population of 5,300,000.

Sverdlovsk : is situated on the river Islet and is an important railway junction. The city had in 1939 a population of 4,25,544. There are over 60 industrial concerns in the city making use of the Urals minerals. A giant Combinat called the Uralmash (the Ural Machine Building Works) has been established which controls the production of heavy machinery and machine tools. In this region along the river Chussovava there are many metal works, some of them reconstructed from the old establishments and many newly erected during the Plans.

Cheliabinsk : This is situated on the river Miass and in 1939 had a population of 273,127. Giant electro-stations and metal works have been established. Here is the plant which used to produce the "Stalinest" tractor, the biggest tractor plant in the whole world. It has now switched over to producing tanks for the Red Army.

Magnitogorsk : is an entirely new centre of Russian metal industry and has been built within recent years at the foot of the Magnetic Mountains. It is the "largest ore mining centre in the whole world," with an yearly output of 6½ million tons or nearly 20 per cent. of the total output of iron ore mined in U. S. S. R. The population of the city in 1939 was 145,870. The blast furnace of the

Magnitogorsk Steel Mill is the biggest blast furnace in the whole country. "Magnitogorsk stands as a symbol of the bold and enterprising construction of the period, a monument to the Soviet faith in man. It is a weapon against backwardness, against ignorance, against foes. Hitler paid respect to this monument when he was forced to admit that he had under-estimated Soviet industrial resources" (*S. A.*).

Apart from these gigantic undertakings many more industries have risen. A great paper plant has been built on the Vishera river banks and there is another paper mill at Kamsk. They are the biggest paper mills in the Union and special plants operate on charcoal to supply raw material to these mills.

There are three large nickel refineries in the Urals regions : Ufalei in the Central Urals : Rege in the Sverdlovsk district and Ufaral Nickel (Southern Urals nickel) and these have made Russia almost entirely self-sufficient.

At Perm, Troitsk, Nadezhdinsk and Nizhny Tagilsk, are also important industries. At Nizhny Tagilsk is the largest railway car building works in the whole world, as well as heavy bridge building works, a large steel mill and a pipe plant. At Orsk is one of the largest locomotive works in the Union.

There are precision instrument factories at Zlatoust, Cheliabinsk and Sverdlovsk ; chemical plants producing nitrates and explosives at Berezniki, a plant for cellulose for explosives at Krasnovishersk, a hunting rifle and motor cycle plant at Izhevsk, a barbed wire plant at Belozersky, not to mention scores of smaller plants spread thickly all over the area.

The Urals copper deposits produce 60 per cent of the copper output of the Union. At Revka, a town 25 miles from Sverdlovsk, a plant for smelting copper by the electrolytic process has been recently constructed. In addition to smelting copper, this plant also provides for the recovery of residual silver and gold. "This plant in Revka known as the Central Urals Copper Smelting Combinat holds, in the non-ferrous metal industry, a place comparable to that which the Magnitogorsk works holds in iron and steel. This plant alone has a capacity one and a half times greater than the entire output of copper in Russia in 1913" (*S. A.*).

The war saw a further tremendous development of Urals industries as hundreds of Ukraine factories moved over to this region. This eastward movement of factories from threatened areas, which has been described by Marshal Stalin as 'Leap Frog' system was not a haphazard movement but an organised retreat of industries on certain fundamental principles. It was one of the main features of the plans to anticipate this necessity of migration and provide for it. In Urals, under the Third Five-Year Plan "many factory buildings were constructed and left vacant with either no machinery at all or with very partial equipment to await any emergency" and that is why industries which leap-frogged to Urals could settle down the moment they arrived and started production ! The destination of the retreat of industries also was predetermined "according to the location of raw materials,

and the transport facilities for delivery of the finished products to military stores. Plants which required steel were allotted to Urals, while chemical industries withdrew to Karaganda or Kuznetsk" (*H. R. P.*).

Coal and Oil

A recent important development has been the exploitation of Urals coal deposits themselves which means that the strain on transport from Kuznetsk and Karaganda for bringing coal to the Urals has been lessened. And in the future development of the Urals, this factor may play a very important part.

Therefore the development of coal and oil resources of the Urals deserves special mention. The XVIII congress of the Communist Party in 1939 put a special emphasis on this phase of the development in this resolution :

"The coal and oil industries must be greatly expanded as they constitute the fuel base for the whole economic development of the country. Coal mining is to be developed to the level necessary to meet all current requirements of the country and to ensure the accumulation of reserves by economic organisations and the state."

The Third Five-Year Plan accordingly provided for an increase of 310% in the coal output and provision was also made for the development of a 'Second Baku', an enormous oil base between the Urals and the Volga.

Along with industry agriculture, too, has developed. Agriculture has been collectivised and modernised. In 1940, 500,000 hectares of virgin land was brought under cultivation. Wheat production has enormously expanded and every effort is being made to make this industrial area completely self-sufficient in food.

Cultural development has kept pace. In the field of education and medicine enormous progress has been made. There are innumerable welfare centres for the workers.

The technical college at Sverdlovsk trains scores of engineers and technicians every year. The Sverdlovsk Medical Centre is an immense institution "with several hospitals for various treatments. One section is engaged in psycho-technical studies of incidence of industrial accidents among mill operative and the knowledge gained is put to practical use in prevention of accidents" as well as in "devising aptitude tests by means of which workmen could be selected for specific employment."

A most important feature of the development was the planning of the cities on scientific basis. Large industrial cities like Magnitogorsk have grown up, planned with dwelling houses, running water, municipal street car system and sport facilities. There are no slums, those inevitable adjuncts of the capitalistic cities.

Phenomenal Change

Lenin described the pre-revolutionary Urals in this way : "Low productivity of labour, backward technique, low wage-scale, predominance of hand manufacture, primitive and rapaciously barbarian exploitation of the natural resources of the region, monopolies, restriction of competition, immurement and isolation from the general commer-

cial and industrial trend of the times—such is the general picture of Urals."

The Soviet revolution and the accompanying Five-Year Plans have entirely changed the face of the Urals. When the war broke out and thousands of factories with their machines and men moved east, a more rapid development than what was witnessed even during the Five-Year Plans took place.

"Leningradites and Moscovites, gunsmiths of Tula, men of Donbass and the Baltic region all have brought here their great culture of labour, experience in production and fierce hatred of the enemy. (*I. L.*, Vol. 3, 1943).

Dozens of institutes and higher technical schools have also moved over to the Urals and have been enriching the experience of the Urals inhabitants. Of the recent development the following quotation gives a graphic description.

"The movement of the 'HUNDRED AND THOUSAND-UNIT PRODUCERS,' the steady stream of inventions and ideas and the work of great scientists is a great leap into the future, into the coming technique. Great events are taking place before the eyes of our generation. It was during the war that the milling machine became introduced and applied to such enormous extent in the Urals. American cold metal presses area were used in large numbers. The engineers have revised and improved many designs replacing parts formerly made on a lathe by lighter stamped parts. The latest advance in foundry technique is the use of steel moulds instead of the former earth ones. Many engineers will tell you that much of what they had been thinking long ago, without daring to put it into practice, has now in war time been applied by them in technology. We have begun to build fast and smoothly. We have learnt to count time by seconds." (*I. L.*, Vol. 3, 1943.).

So today the Urals have become the backbone of the defence of Russia. In the local dialect Urals means 'golden earth.' The golden earth has now become the Great Arsenal of the Soviet Country.

WESTERN SIBERIA (CAPITAL SVERDVOSK)

At the foot of the Urals stretching eastward midway to the Pacific lies Western Siberia. Strategically, it is of very great importance because it is least vulnerable to invasion or aerial attack. Far away and removed from the battle fronts, its industries have been turning out arms and equipment for the army. Even before this war all the equipment needed for the farms and plants of Soviet Asia was being manufactured here.

Western Siberia contains the Omsk and Novosibirsk regions and Krasnoyarsk and the Altai territories. From west to east runs the Trans-Siberian Railway and from north to south, the Ob and the Yenisei rivers are the routes of transport.

It was the discovery of Kuznetsk coal mines that laid the foundation for the industrial development of this region. Kuznetsk has supplied coal to the Urals and in exchange takes iron ore. This exchange has been termed 'the boldest and most stupendous project' conceived in this area.

"The coal deposits of Western Siberia comprise 43 % of the total known coal deposits of the Soviet Union. The Kuznetsk basin today produces 200,000,000 of tons of coal a year.

The Kuznetsk iron and steel centre was created with no industry at all as a foundation. In the Urals and the Ukraine there had at least been small plants with which to start. The Kuznetsk mills were begun about twelve years ago.... Since Kuznetsk coal deposits were too great to be used solely at the Magnitogorsk smelters, steel mills were also built. Manganese was obtained from the famous Chiatura mines in the Caucasus and shipped by rail and water for 3540 miles to Kuznetsk. Fluorite was brought from Eastern Siberia and fire-proof clays from Kazakhstan." (*S. A.*).

The Stalin Metallurgical Combinat alone produces more than 1,700,000 tons of pig iron and 2,100,000 tons of steel per year.

But Kuznetsk mills "consuming over 70 car loads of raw material every hour became dependent for all their raw materials except coal on sources thousands of miles away. This dependance on far away sources was a strategic weakness; for if at any time the communications were cut, the mills would be rendered useless." So during the Third Five-Year Plan, an effort was made to discover raw material near about and the search has proved successful. At Gornaia Shoria deposits of iron ore were found. At a distance of 400 miles at Mazul manganese is obtained. Though Kuznetsk still obtains its raw materials from the Urals, it is no longer entirely dependant on it.

The most important industrial regions of this area are

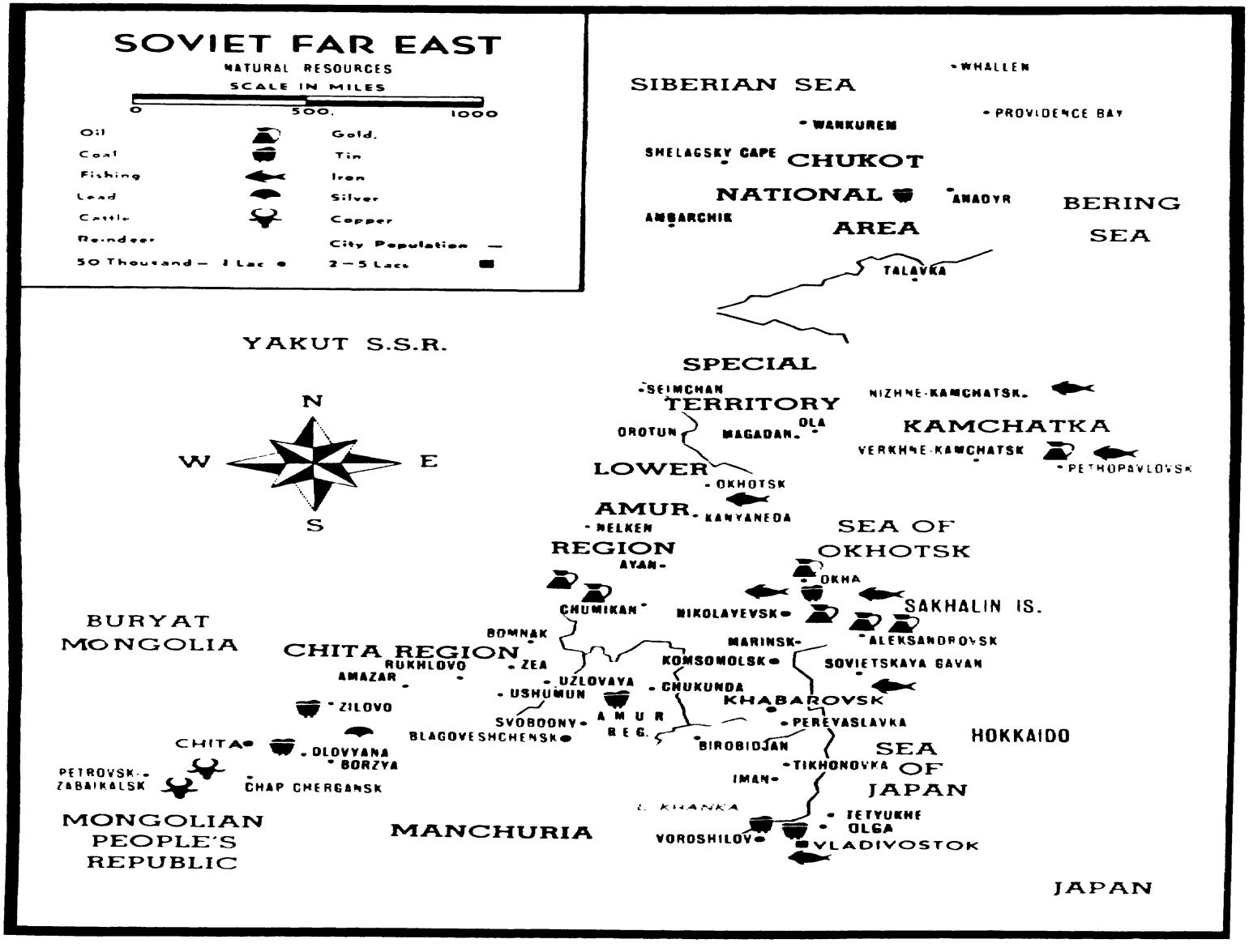
Kuznetsk, (now renamed *Stalinsk*). It is situated on the river Tomi. It was once a petty town with a population of 4,000. By 1939 it developed into a city of 2,20,000 population. It is a very busy industrial centre. The huge Ural-Kuznetsk Metallurgical Combine is here.

Novosibirsk. This is situated on the river Ob at the crossing of the Trans-Siberian Railway and as such one of the most important centres of communications. Its population is now well over four lakhs. It has flour mills, saw mills, slaughter houses, leather and boot making, and railway repair works.

Biysk. There is a large textile factory, metal works, sugar refinery, macaroni factory and a big meat refrigerating combine. This region possesses immense natural resources chiefly of coal, timber, poly-metallic ores and water power.

Tyumen. It is on the river Tura and is a very important river port, and the terminus of the waterways connecting the whole western Siberia and Kazakhstan with the mining regions of the Urals. There are flour mills, saw mills and workshops for repairing river fleet, as well as flourishing leather and rope making industry. Rope making is very much developed in Siberia in this part owing to the growth of 'Kendyr,' a plant which gives strong and at the same time very light fibre.

Krasnoyarsk. In this administrative district coal, copper, graphite and gold have been discovered. The city of


SOVIET FAR EAST
NATURAL RESOURCES
SCALE IN MILES
0
500
1000
Oil
Coal
Fishing
Lead
Cattle
Reindeer
Gold
Tin
Iron
Silver
Copper
City Population
50 Thousand – 1 Lac
2 – 5 Lacs
SIBERIAN SEA
WHALLEN
PROVIDENCE BAY
WANKUREM
SHELAGSKY CAPE
CHUKOT
NATIONAL
AREA
ANADYR
BERING
SEA
ANGARCHIK
TALAVKA
YAKUT S.S.R.
SPECIAL
TERRITORY
SEIMCHAN
NIZHNE-KAMCHATSK
OROTUN
MAGADAN
OLA
KAMCHATKA
VERKHNE-KAMCHATSK
PETROPAVLOVSK
LOWER
OKHOTSK
AMUR
KANYANEDA
NELKEN
REGION
AYAN
SEA OF
OKHOTSK
OKHA
CHUMIKAN
NIKOLAYEVSK
SAKHALIN IS.
ALEKSANDROVSK
BURYAT
MONGOLIA
BOMNAK
CHITA REGION
MARINSK
RUKHLOVO
ZEA
KOMSOMOLSK
SOVIETSKAYA GAVAN
AMAZAR
UZLOVAYA
CHUKUNDA
USHUMUN
KHABAROVSK
ZILOVO
SVOBOONY
AMUR
REG.
PEREVASLAVKA
CHITA
BLAGOVESHCHENSK
BIROBIDJAN
HOKKAIDO
OLOVYANA
BORZYA
SEA
TIKHONOVKA
PETROVSK-
ZABAIKALSK
CHAP CHERGANSK
IMAN
OF
JAPAN
L. KHANKA
TETYUKHE
OLGA
MONGOLIAN
PEOPLE'S
REPUBLIC
MANCHURIA
VOROSHILOV
VLADIVOSTOK
JAPAN

Kazakhstan : *Types or races it represents. But there is no communal problem*

Krasnoyarsk is situated on the banks of the Yenisei and has a population of nearly two lakhs. Besides being a main trading centre it has highly developed agricultural industries, locomotive repair works and gold smelting laboratories. It has a full fledged river fleet. A plant for manufacturing gold dredging equipment has recently been started.

Norilsk. It is within the Arctic circle ; and has no direct rail connection with the outside world. In recent years, however, a railway line has been laid across the Tundra to the port of Dudinka on the Yenisei. Norisk has a population of about 30,000. The Northern Polymetallic Combinat refines copper and nickel, besides producing such rare metals as molybdenum, mercury and zinc.

Barnaul. It is the capital of Altai territory. It is connected with the Trans-Siberian Railway and is in addition a large river port. Textile mills have been recently established at this place and by 1939 the population has increased to about 1,50,000. There are flour mills, leather and fur industries. Siberian felt boots and overcoats are manufactured at this place.

Agricultural progress has kept pace with industrial development. It was realised that the southern Siberian soil was rich and if the precariousness of rain fall could be corrected it would yield rich harvest. By scientific rotation of crops, by the use of modern methods of ploughing and utilisation of deep rooted seeds, an agricultural revolution has been achieved. In 1935, 97,949 sq. miles were under cultivation and in 1941, 40,00,000 of acres were in addition brought under cultivation.

In the Narym district of Novosibirsk region, at one time, no grain was produced at all. Today it exports grain. In the Minusinsk basin and in the Altai territory wheat and sugar beet are cultivated. Minusinsk which is on the river Yenisei is not merely rich in copper magnetite, ochres, ochre clay, and brown iron but is a very important agricultural centre and exports large quantities of wheat.

A motor track runs from this place to Tannu-Tuva Republic. The development of communications is another integral feature. Innumerable motor roads have been developed and the whole area is linked up by radio-telegraph and air mail service.

The industrial development of Western Siberia is, as has been recounted, of very recent origin and at Kuznetsk, the main industrial centre of this region, industries were started with no industrial foundation at all. In 1917, Kuznetsk was a petty village. In 1939, it had developed into the city of Stalinsk with a population of over 2,20,000. "The Kuznetsk district with its prospering industrial towns of Prokopievsk, Kiselevsk, Leninsk has a population of 1,000,000 and many industries have now been shifted on to this place from Ukraine, with a consequent increase in the population.

Before Stalinsk was built a Russian poet, Mayakovsky, wrote :

"In four years time
This glade of boggy soil
Will be a garden city."

It was not a dream. It was a correct prediction.

YAKUTIA

Yakutia is an autonomous republic and covers a vast area, but has only a population of 400,000, the population of a city of the size of Bangalore. It covers the rich Lena river valley.

From centuries past, this valley has been famous for its gold mines but till recently gold was collected in the most primitive way. There was no systematic prospecting and the few fortune hunters who roamed about the region in search of gold kept what they found. But in 1923, a Soviet citizen stumbled on a rich gold mine and the Soviet government took in hand the development of gold mining with its characteristic thoroughness ; and, within a few years a mining town of 50,000 in population had arisen. The Aldan gold fields are now one of the most important gold producing areas in the whole of Soviet Russia.

Apart from the Aldan gold fields, gold is now obtained at Allakh-Yun, along the northern Indigirka river and in the basin of the river Vilui, located in the interior of Yakutia.

Apart from gold, many other minerals have been discovered. Platinum, mercury, copper, lead, silver, zinc, tin, serenium, rock salt, coal, oil, and iron have been found. In addition, very rare materials like strontium have been discovered. Along the Yana river timming has been developed on a large scale, and, the West Verkhoyansk Tin Combinat to-day supplies a large portion of Soviet needs. In the basin of river Tolba and in the Nordvik region near Kozhevnikov Bay, oil has been found and to-day the Arctic region produces sufficient fuel for aviation, sea and river transportation.

Coal, too, has been found at Kangalassy mine near the capital Yakutsk and at Sangar Khai. Yakutia now ships more than 50,000 tons of coal a year.

Industrialisation has progressed quite rapidly. In 1927, there were only eight factories employing about 1,000 people. By 1919 industrial establishments rose to 70 including lumber mills, power plants, cement and food factories. "One of the outstanding food factories is a refrigerator ship which in 1941 began to ply the Lena river collecting, preparing and canning some of the more than 60,000,000 lbs. of fish that are caught annually and transporting it to the main inhabited centres of the republic." (*S. A.*).

Until 1936 only 22 % of the Yakutian territory was explored for its mineral resources but by that time already 350 deposits of valuable minerals were discovered including 'fifty deposits of coal and iron.'

Reindeer is the most important animal of this region and an "interesting undertaking has been scientific reindeer-breeding. Collective and Government reindeer farms have been established and every effort is being made to expand the herds so that reindeer may become the basic staple food as well as the main source of leather" (*S. A.*). In addition to reindeer there were 392,000 cattle and 162,000 horses in 1938.

More than half of Yakutia is covered by unbroken forest. Fur bearing animals are found in plenty ; the

most important animals being the squirrel, sable hare, ermine, bear, martin and fox. "The best bear and marmot skins come from this region."

The Tzarist conquerors whose main preoccupation was plundering of furs imposed a 'fur tribute' known as *Yasak*. "Not only were the Yakuts to pay the general *Yasak* but the skin of every 10th animal killed had to be surrendered to some official or institution—the military governor or the church." To-day Yakutia exports furs and with them pays for its imported grain and manufactured goods.

Agriculture, too, has been developed. Scientific farming has been introduced and by clearing jungles, over 250,000 acres have been brought under cultivation. A special type of grain has been evolved by means of which excellent crops of wheat and rye are reaped. Potatoes, cabbages, beans, onions, carrots are being now grown in the region above the Arctic Circle. "Throughout Yakutia market-gardening in the vicinity of every settlement is encouraged."

Development of communications, however, is the most marked feature of this region. The Lena river and its tributaries have been extensively developed for transportation and Tiksii Bay on the Aldan river serves as a very important port where Arctic steamers dock. From 1939 ships from Murmansk and Archangel have been regularly voyaging, and Tiksii Bay has become a well equipped ocean port providing Yakutia with an outlet by sea either to European Russia or by Behring Strait to lands bordering on the Pacific.

The Amur Yakutsk highway which connects Tommot on the Aldan river with the Trans-Siberian railway station of Bolshoi-never was built in 1929. There is another important road which connects Kirensk on the Lena river with the city of Irkutsk. There are more than 20,000 miles of roads in Yakutia.

In addition the Baikal-Amur Railway connects Yakutia to the Trans-Siberian line.

A net-work of air stations covers Yakutia. From Irkutsk to Yakutsk passenger and mail air ways are in operation for over ten years. "The Yakutsk Soviet has a squadron of air planes used exclusively to maintain administrative contact throughout the vast territory. Scores of wireless stations have been erected to service the air ways and a powerful new radio station in Yakutsk maintains direct contact with Moscow" (S. *I.*).

Culturally, the republic has registered enormous progress. Till recently, there was no Yakut alphabet. The soviets created a new alphabet and now students study text books printed in Yakutian language. In 1940, there were 425 schools and more than 66,000 children were attending the schools. Innumerable technical schools have been established to train technicians and skilled personnel for the industry.

There are more than 200 physicians, many hospitals, rest homes as well as vacation resorts.

Yakutia can now boast of 23 motion picture houses, and in addition there are 59 travelling movie shows. There

are 4 dramatic theatres and one of these stages dramas written in Yakut language by Yakut dramatists.

The progress has been summed up well by a Yakutian newspaper : " Impassable jungles have been transformed by the workers into a park for culture and rest : with walks of golden sand, volleyball courts, rifle ranges, dancing floor and a mass playground surrounded by flower gardens. All this gladdens and delights every one who visits this place now where troupes of Moscow actors provide us with modern entertainment. " (*S. A.*).

Buryatia

Economic : The Buryat-Mongol autonomous republic was formed in 1923. But this did not automatically usher in a period of prosperity. Tzarist exploitation and early struggles were over ; but the evil inheritance was still there.

During the civil war agriculture and herding severely suffered and in 1923 " the sown area in Buryatia was under two-thirds of what it had been in 1916-17. Of course there was no agricultural machinery at all. Notwithstanding the efforts made by the new republic to carry through a triple programme of resuscitating industry, mechanising agriculture and establishment of wide education, the general structure of Buryatia was little changed, upto the period of the First Five-Year Plan in 1928. Trade remained in private hands. The Buryats remained over 90 % nomads or semi-nomads. " Yet it can be said that by 1928 Buryatia had caught up with and passed the pre-revolutionary level.

With the introduction of the First-Year Plan things radically changed. " The position of Buryatia in this gigantic plan was affected by the international situation. South of Buryatia lay the Mongolian people's republic, a state independent of, but in close relation with, Soviet Union. This country of enormous area stretched far to the west and east of Buryatia, reaching on the east to Manchuria and on the south-east to inner Mongolia and the approaches to Peking. This vast country had a population under a million and only three years before, in 1924, was declared a republic following 'non-capitalist development.' In the Mongolian peoples' republic open, foreign interference and influence were eliminated. Yet there were many foreign agents, mostly among the wealthier lamas and former Khans whose position of privilege was being more and more restricted by the Mongolian Peoples' Government."

Soviet Union had also to reckon with the bellicose attitude of some of the Chinese war lords—China claimed suzerainty over Mongolia and it was never formally repudiated —and also the possibility of the Far Eastern territory becoming a theatre of war. " In the event of a counter revolutionary upheaval in Mongolia, the Soviet Union had to ensure a supply base for which the herding plains and the wheat fields of Buryatia were the obvious choice. "

So on May 27th, 1929 the Central Committee of the Soviet Communist Party put forward a programme for the Socialist reconstruction of Buryatia's " rural economy : the abolition of pre-revolutionary land relationships : faci-

litation of co-operative production by poor and middle class peasants and herdsmen, settlement of nomads and semi-nomads, establishment of agronomic and technical bases, etc."

The socialist economic development followed the familiar course. Agriculture was collectivised and modernised. By 1936, there were 1068 collective farms covering 86·1 per cent (and it rose to 90·8 % in 1937) of all rural households. Individual farmers in 1936 controlled only 10·3 % of the Republic's horses, 8·5 % of cattle and 3 % of the sown area. The collective farms were getting bigger : in 1932 they averaged 42 households each : in 1934, 70 households. In the development of collectivised agriculture, as elsewhere, the machine tractor stations played a very important part. In 1936 there were 39 M.T. stations with 1683 tractors, 280 agricultural combines as well as lorries and other equipment.

Industrial development was likewise taken in hand under the first two Five-Year Plans.

At the end of the 19th century, the Trans-Siberian Railway was built largely with a view to Tzarism's imperialist designs on the north-eastern province of China. "This line passed through the heart of Buryatia. Based on the railway and practically confined to the regions immediately adjoining it, capitalist industry sprang up. These factories, however, were only small and were technically very backward. There was no incentive to spend money on the latest equipment nor was it in accordance with the Tzarist policy that any considerable industrial area should arise anywhere but at the centre around Moscow and St. Petersburg."

Local industrialisation, however, was the avowed policy of the Soviets. By the end of the First Five-Year Plan industrial production increased by 160 %. Among the new plants constructed in the first plan were the Verkhne-Udinsk mechanised foundry, the Kluyevski saw mill on lake Baikal, the Hoffmann kiln of the upper Beryozov brick factory and the first section producing 750 kilowatts of the Verkhne-Udinsk power station.

The second Five-Year Plan saw a tremendous development. Even Buryatia was invaded by the giant factories for which Soviet Union was becoming famous. One of the biggest plants of the Union is the Railway Repair Works of Verkhne-Udinsk, construction of which began in 1932. This is a combinat of many different factories and machine shops. The works were soon developed not merely to repair but to build, and, as early as April 1938, it produced the first locomotive of the powerful "SO" type.

The new "SO" (Sergo Orjonikidze) is a condenser locomotive, the condensing installation of which converts the steam discharged by the cylinders into water to be used again for steam. The "SO" locomotive can run from 620 to over 1,000 miles without taking water and it has great advantages especially in arid districts and places where water is of poor quality. Further, it also reduces fuel expenditure by 15 to 20 per cent.

The second important works is the Djida Wolfram Combinat. Wolfram (Tungsten ore) is essential to the electrical industry and for the production of high grade steel. In 1933 the richest wolfram beds in the whole world were discovered at Djida—west of Kyakhta —on the borders of Mongolia, and, by next year construction of the plant had begun.

A great meat combinat began production at Verkhne-Udinsk by the end of the second plan. In this combinat "everything except the beasts' last breath is utilised," remarked the Soviet food Commissar Mikoyan.

Other important factories of Buryatia erected or enlarged during the second plan were the Verkhne-Udinsk mechanised glass factory, a milling combinat in the same city : two mechanised bakeries ; a big fish canning factory at the mouth of the Barguzin river on Lake Baikal : four new saw mills, and three tin factories.

The development of Buryatia was bound up with its geographical position which determined that it should be a great base for supplying consumer goods as well as a base for transport organisation. "For, to the west lies Western Siberia where an enormous industrial growth has taken place around Kuznetsk-Magnitogorsk coal and steel combine. To the east is the Far Eastern region where another complete new industrial base has been established. To the north is one of world's greatest gold mining area, Vitim and Olekma basins. All these areas look to Buryatia for supplies of consumers goods including food." Secondly, Buryatia lies on the cross roads of northern Asia and has to supply the needs of transport industry.

A new railway has been built, the Baikal-Amur Railway line. This leaves the old Trans-Siberian line east of Krasnoyarsk. Skirting the northern end of Lake Baikal, it emerges at the new Pacific port of Soviet Haven. Another railway was projected in 1938 to run along the shore of Baikal. In 1938 a separate line was built from the capital, Ulan-Ude, to Kyakhta on the Mongolian frontier. These lines, apart from their strategic importance, contribute vitally to the economic development of Buryatia.

New resources are continually being discovered. Besides wolfram, copper, mica, molybdenum, many other valuable minerals and metals have been found in the republic and are being worked up.

With the development of new industries, there has been a tremendous growth of urban population. New industrial cities have sprung up. At the capital itself a new town has arisen. At Djida a neat little town developed. Wherever industries were developed, care was taken to provide all the facilities to the workers and the towns were planned on modern lines. The face of Buryatia has completely changed and the country has taken its rightful place among the nations of the Soviet Union.

Cultural Development. "The peoples of the border regions of Russia were oppressed : their language and culture forbidden." But even apart from this there was not much of culture in Buryatia. There was scarcely any music or art, for the lamas forbade all acting and almost all music except in the Buddhist celebrations. There was not much literacy. The country was riddled with disease,

especially tuberculosis and syphilis, "although the country had a curative climate like that of Switzerland."

When the Soviets took over power, they immediately set about remedying this state of affairs. Strenuous efforts were made to spread education : new schools were started. By 1928 there were 510 schools and about 29,400 students. A state publishing house was established, though "during the first year it could publish only seven small booklets, three of them in Buryatian language."

The rate of progress therefore was disappointing, though qualitatively the desire to develop was refreshing and in 1930 a thorough reorganisation of the whole educational set-up was undertaken with a view to a more rapid spread of literacy.

The first of these important reforms was the substitution of a new alphabet for the Buryat language. "Uptil then teaching and literature were in the Mongolian script, which was unsuitable for the modern needs." Therefore, a new latinised alphabet was introduced in which modern scientific terms could be easily and conveniently written. "It might have been thought more sensible, in view of the necessarily close contact between Buryats and Russians, to have adopted instead the Russian alphabet : but at that time such a choice might have been interpreted as a sign of great Russian Chauvinism," so it was avoided and the new script was a very great help in the spread of education. In 1938 the script was changed over ultimately to Russian. By that time the aims of the Soviets were very well understood and the people themselves desired the adoption of the Russian script. With this reform Buryat language and script have become as flexible as any language in the world and can absorb the latest scientific and technological knowledge. Meanwhile education spread. By 1937, 84 % were literate. The greatest achievement was the spread of literacy among the Buryat women, who by 1935 were 58 % literate. Hundreds of schools sprang up, including kindergartens and creches : most of them in rural localities."

Technological, agricultural and medical schools and colleges were opened. In 1935, 25 times as much was being spent on education as in 1923 : and seventy-six full size books were published in the Buryat language, compared with three pamphlets in the first year of the Republic.

Public health too has received attention. Even after the establishment of the republic, there were only 23 modern doctors. The second plan saw forty hospitals with about 1700 beds : over ninety clinics and many 'health posts.' Arshan where some of the world's richest mineral and radio-active springs were found began attracting visitors from all over the Soviet Union. "When the foundations of Socialist prosperity in the country had been laid and life was turning the corner into smooth waters, the long frozen buds of Buryat culture began to thaw out : its supreme expression was the founding of the Buryat Mongolian Theatre, the first in the people's history. . . ."

"So Buryatia grows economically and culturally. Its peoples, one time nomads, reach out and take for themselves the soap and Shakespeare, the gramophone and fresh fruit that western Europe has long known. More and more of the things which make life broader and full, more plea-

sant and more inspiring, become available to this little people in the heart of Asia" (*D. I. S.*).

Far East

Though popularly the whole of Eastern Siberia is termed Soviet Far East, technically, only Chita region, Khabarovsk and Maritime Territories are part of the Soviet Far East, the life line of this region being the Amur river.

The Khabarovsk territory is subdivided into the Jewish Autonomous, the Amur, the Lower Amur, the Sakhalin and the Kamchatka region within which are found the Koriak and Chukchee territories. The Maritime territory consists of Ussurisk and is administered from Vladivostok. The Soviet Far East comprises an area of 1,081,000 sq. miles, but has only a population of 4,500,000.

The most important problem of this region therefore is manpower : and the Soviets encouraged emigration not merely of single families but of entire villages to these areas. By 1940 over 800,000 of people had been so settled. Yet it was reported in 1940 that there were "millions of acres of excellent pasture land which must idly await the migration of large number of farmers from other parts of U.S.S.R." After the outbreak of Russo-German war, thousands of people have been evacuated to this area from areas threatened by Germans.

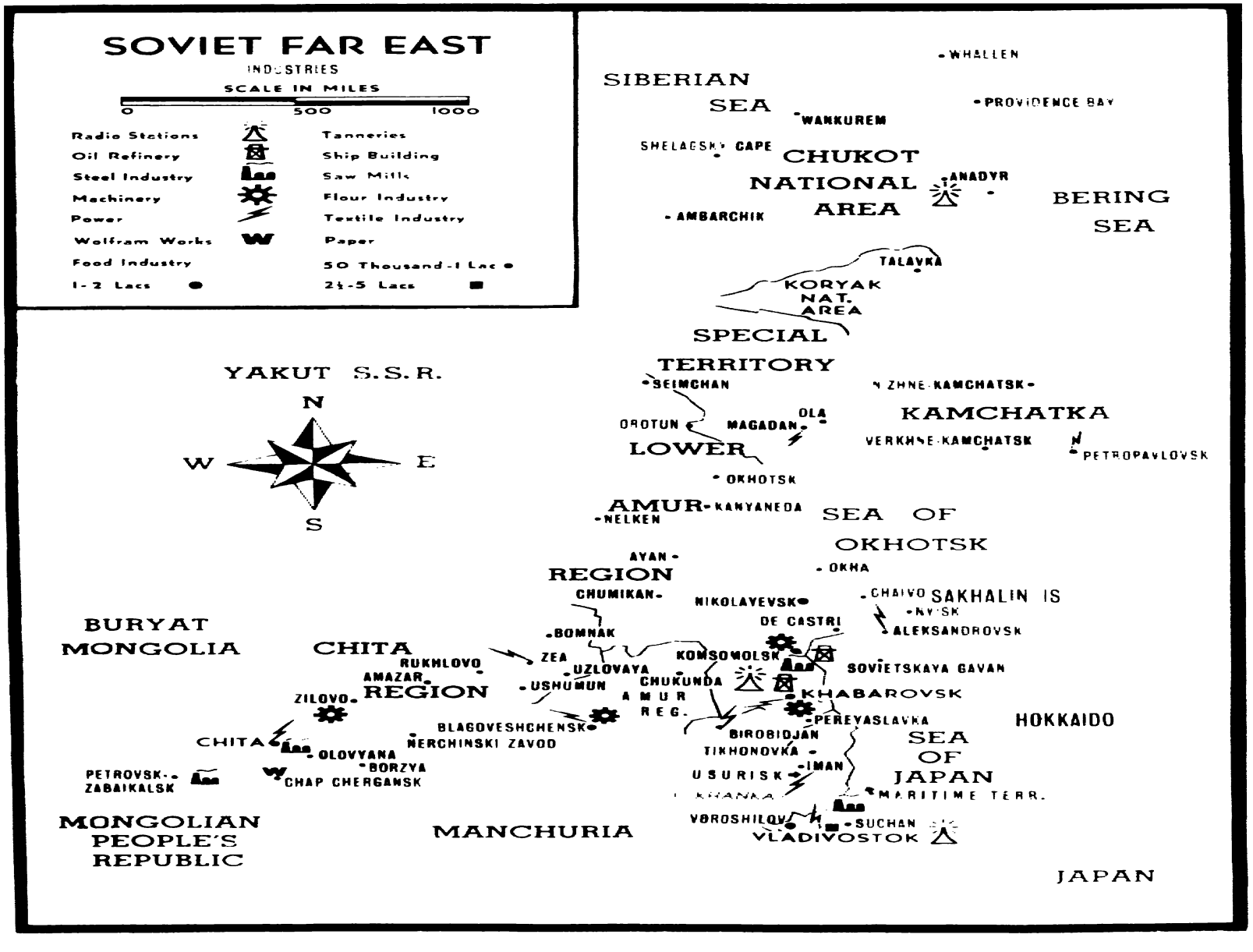
The Far East had a strategic importance apart from the discovery of many minerals ; and the whole development of this area has been coloured by its proximity to Japan and the consequent threat to its independence. Special stress has been laid on the creation of an independent, self-sufficient, industrial region which would be able to take care of itself and not depend on far away Moscow. During the Five-Year Plans industrial development in Far East surpassed the rate of the growth for the rest of the Union. "The Far Eastern district by the end of the third Five-Year Plan is to become an economically balanced first rate industrial region strengthening U.S.S.R. in the East." (Somin.) Ten percent of all capital investment during the Third Five-Year Plan was earmarked for construction in the Far East.

The development of communications was an essential prerequisite to achieve the goal of creating an independent military base in the Far East, supported entirely by the industries developed locally. The doubling of the Trans-Siberian track was a spectacular achievement in this direction. A new railway line called the Baikal Amur line has been built and this links up all the chief cities of Far East with central and western Siberia. This railway runs behind mountains and, being invulnerable to attack, is of very great strategic importance.

Another strategic railway running north from Komsomolsk along the Okhotsk sea coast had also been projected as early as 1928. From Khabrovsk, air lines radiate in all directions and Moscow is only 48 hours by scheduled air line.

Chita

This region has the largest farms in the whole of the Soviet Union and some of the farms consist of approxim-


SOVIET FAR EAST
INDUSTRIES
SCALE IN MILES
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1000
Radio Stations
Oil Refinery
Steel Industry
Machinery
Power
Wolfram Works
Food Industry
1-2 Lacs
Tanneries
Ship Building
Saw Mills
Flour Industry
Textile Industry
Paper
50 Thousand-1 Lac
2½-5 Lacs
WHALLEN
SIBERIAN SEA
PROVIDENCE BAY
WANKUREM
SHELAGSKY CAPE
CHUKOT NATIONAL AREA
ANADYR
BERING SEA
AMBARCHIK
TALAVKA
KORYAK NAT. AREA
SPECIAL TERRITORY
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KAMCHATKA
OROTUN
MAGADAN
OLA
VERKHNE-KAMCHATSK
PETROPAVLOVSK
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OKHOTSK
AMUR-
KANYANEDA
NELKEN
SEA OF OKHOTSK
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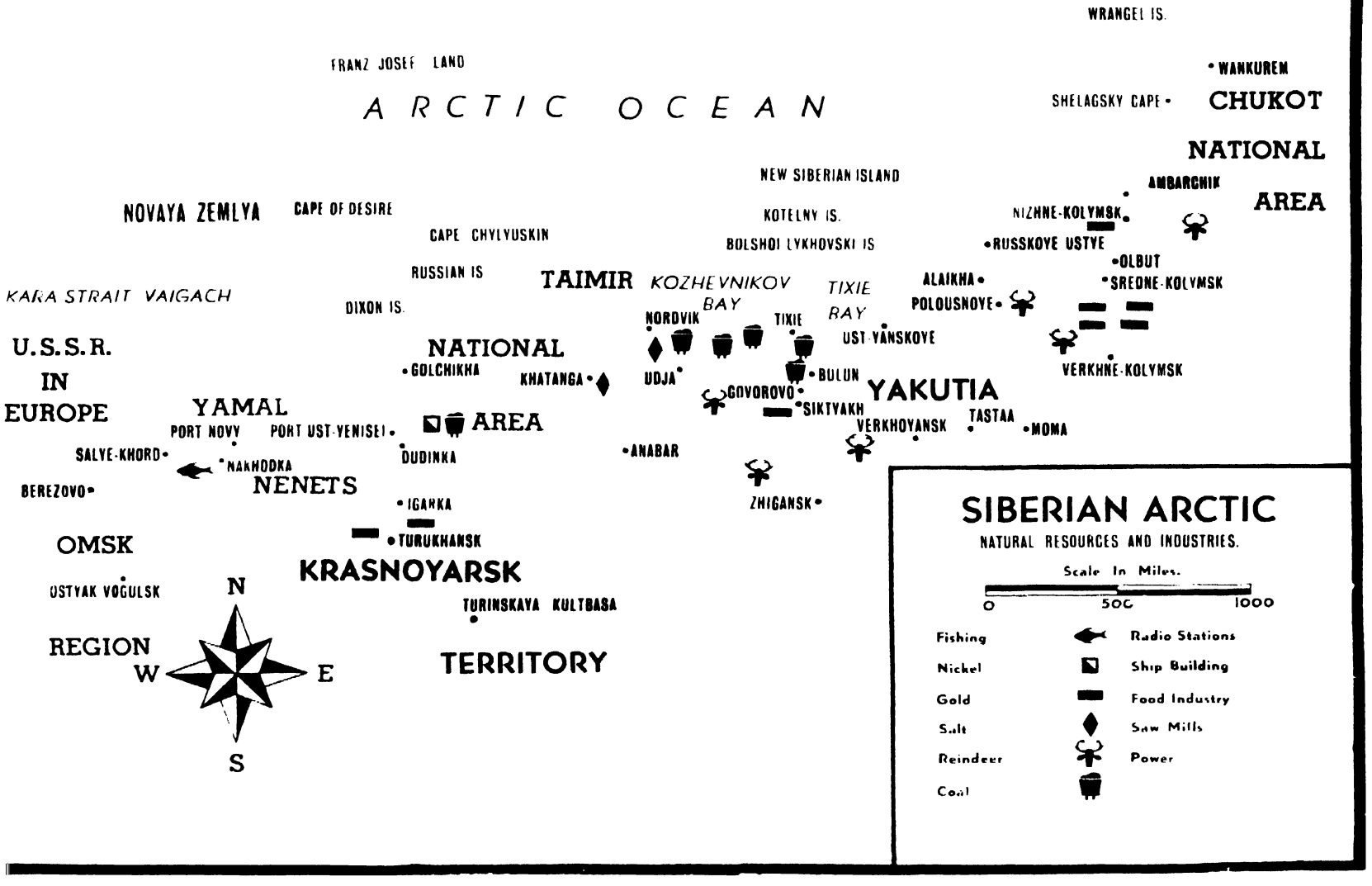
REGION
OKHA
CHUMIKAN
NIKOLAYEVSK
CHAIVO
SAKHALIN IS
NYSH
ALEKSANDROVSK
DE CASTRI
BURYAT MONGOLIA
CHITA
BOMNAK
RUKHLOVO
ZEA
UZLOVAYA
KOMSOMOLSK
SOVIETSKAYA GAVAN
AMAZAR
REGION
USHUMUN
CHUKUNDA
KHABAROVSK
ZILOVO
AMUR REG.
PEREVASLAVKA
HOKKAIDO
BLAGOVESHCHENSK
BIROBIDJAN
SEA OF JAPAN
CHITA
NERCHINSKI ZAVOD
TIKHONOVKA
OLOVYANA
BORZYA
IMAN
USURISK
PETROVSK-ZABAIKALSK
CHAP CHERGANSK
MARITIME TERR.
VOROSHILOV
SUCHAN
MONGOLIAN PEOPLE'S REPUBLIC
MANCHURIA
VLADIVOSTOK
JAPAN


WRANGEL IS.
FRANZ JOSEF LAND
ARCTIC OCEAN
WANKUREM
SHELAGSKY CAPE
CHUKOT
NATIONAL
AREA
NEW SIBERIAN ISLAND
ANADYRSKIY
NOVAYA ZEMLYA
CAPE OF DESIRE
KOTELNY IS.
NIZHNE-KOLYMSK
CAPE CHYLYUSKIN
BOLSHOI LYKHOVSKI IS
RUSSKOYE USTYE
OLBUT
RUSSIAN IS
TAIMIR
KOZHEVNIKOV BAY
TIXIE BAY
ALAIKHA
SREDNE-KOLYMSK
KARA STRAIT
VAIGACH
DIXON IS.
POLOUSNOYE
NORDVIK
TIXIE
UST-YANSKOYE
U.S.S.R.
IN
EUROPE
NATIONAL
GOLCHIKHA
KHATANGA
UDJA
BULUN
VERKHNE-KOLYMSK
YAMAL
GOVOROVO
YAKUTIA
SIKTYAKH
AREA
PORT NOVY
PORT UST-YENISEI
VERKHOYANSK
TASTAA
MOMA
SALYE-KHORD
DUDINKA
ANABAR
NAKHODKA
NENETS
BEREZOVO
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IGARKA
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KRASNOYARSK
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Radio Stations
Nickel
Ship Building
Gold
Food Industry
Salt
Saw Mills
Reindeer
Power
Coal

ately 22,000 acres. In 1940 there were 2616 tractors, 1226 harvester combines and thousands of machines for sowing, reaping and binding. More than 15 lakhs of acres were brought under cultivation. The whole area has been heavily industrialised and there are about eight large enterprises. One of them "The Khapcheranga Tin Combinat is the largest ; it is said to produce 65 % of all Soviet Asia's production." Coal is mined at Chernov, Arbagar and some other points. There are also deposits of wolframite, molybdenum, arsenic, marble and other valuable natural resources : among them are forests of pine, larch, cedar and fir trees which cover nearly half of the area." (*S.A.*).

The Jewish Autonomous Region

This region was organised in 1928 to provide a home for Jews who wanted to settle down and develop a home of their own. In the beginning they had to overcome innumerable difficulties as most of the settlers were petty traders and artisans and were not accustomed to hard labour : but by 1938 more than 20,000 working people had settled there. Since the Jews are not persecuted in the Soviet Union but they are free to live any where they like, there is no special inducement for them to colonise in this particular area. Yet to provide an occupation for those whose livelihood disappeared when private trade was abolished, this region had to be organised. This, in part, explains the rather slower development of this region. During the present war, however, thousands of Jews driven away from Poland and other German occupied areas have found a welcome home in the Jewish Autonomous Region.

Khabarovsk Territory

Khabarovsk is the centre of the strategic area which has advanced rapidly.

The lumber industry is of very great importance and there were already 160 saw mills in 1937. In the city of Khabarovsk which has a population of nearly two lakhs there is a large oil refinery which converts the crude oil from Sakhalin into motor and aviation petrol. A new city on the Amur, Komsomolsk, 'the city of youth,' has arisen. This city "typified the new Soviet Asia better than any other community east of Urals. According to William Mandel, the author of *Soviet Far East*, it has a population of three lakhs. This city was entirely built by the members of the young Communist league and 60 % of the population was under 30 years of age. It was at Komsomolsk that the first ship (probably destroyer) built by Russians in the East was launched in the summer of 1939. The Amur Steel Works in the city produces more than 6 lakhs of tons of finished steel goods. A pipe line brings refined oil up the Amur river to this city" (*S. A.*).

The Kolyma basin where the richest gold mines of Soviet Asia have been found forms part of the Khabarovsk territory. The Kolyma basin is now producing approximately ⅓rd of the Soviet Union's production. To develop this gold mining area, a separate administrative unit called the Dalstroi (Far Eastern Construction Agency) has been established.

The Kolyma basin is "reached by a motor highway, reported to be 300 miles long running across the mountains

from the city of Magdan near the port of Nogaevo at the head of the Okhotsk Sea. This highway reaches into the upper Kolyma valley and it may be extended into Indigirka valley. To provide overland transport in winter when Okhotsk sea is frozen a paved highway will be laid to connect Magdan with the auto-road running north into Yakutia from the railway near Skovorodino. A railway to connect the Trans-Siberian is also under discussion" (*S. A.*).

Nikolaievsk is another important city of the Khabarovsk area. It is an ancient city and now has fish canneries processing the salmon and other fish caught in the Far Eastern waters.

Maritime Territory

Maritime territory is the defence bastion of Soviet Far East. It is a fertile area, especially the Ussuri river basin. Grain, soya beans, rice, and sugar beets are cultivated.

The Sikhota-Alin mountain range runs north to South throughout the Maritime Territory and it is believed that this mountain range is as rich in minerals as the Urals. So far only a portion of the range has been explored but already iron, manganese, coal, lead, zinc, gold, silver, mercury, molybdenum, and platinum have been discovered. Fine marble and graphite are being quarried. Mills have been established to refine the ores extracted from the mines.

Another important industry is the cement works, and cement required for the whole Far East is produced here. Vladivostok, the Russian port on the Pacific, serves as the army and naval garrison. Vladivostok has grown very rapidly in population and in 1940 had a population of over 2 lakhs, not taking into account the naval and military garrisons. There are extensive shipbuilding yards on the outskirts of Vladivostok and shipbuilding for merchant, fishing, and naval fleets is one of the most important industries.

Fishing, however, is the chief occupation and industry connected with fisheries has been extensively developed. The Pacific coastal waters as well as the Amur river and Ussuri river and Lake Khanka (fifth largest in Soviet Asia, 1538 sq. miles and spawning ground for salmon) are exceptionally rich in edible fish, 60 % of which is salmon. More than fifty shore and twenty floating canneries handle the annual catch of over 2,00,000 tons.

The Far Eastern fisheries contributed one quarter of the total fish catch in the U.S.S.R. in 1938, and by 1940 it rose to 30 %.

Till recently, however, it was the Japanese that dominated this region for fishing. It was one of the causes of Russo-Japanese rivalry and friction, while the Soviet used to lease out their fishing lots also to the Japanese for exploitation. But after 1928 slowly the Soviets ousted the Japanese from their position and developed their own fisheries. Since 1928, the Soviets have taken over the whaling also in the Behring Strait which was formerly being conducted by Norwegian interests.

Vladivostok was under Japanese military occupation for four years after 1918 : now heavily fortified by the Russians, it is considered as the dagger pointed at the heart of Japan.

The Island of Sakhalin

The island of Sakhalin is peculiar in that Japan and Russia have a contiguous frontier in it. The northern part of Sakhalin is under the Japanese suzerainty. From 1918 to 1925 the whole island was under Japanese occupation. The most important product of Sakhalin is oil. Both the Soviet and the Japanese mine oil from this area. In order not to rely too heavily on Sakhalin oil, Soviet Union has made attempts to develop alternative oil resources in Kamchatka and along the lower Amur river basin in addition to the establishment of synthetic oil plants to provide for emergencies. Coal, too, is found in abundance in Sakhalin. Under the Tzarist rule it was called the Devil's Island of the Empire, the most notorious penal colony of the empire. In 1925 when the Soviets regained their part of the island the population was barely 10,000. By 1936, the population rose upto over 1 lakh. Today the island has a big radio station and every day planes take off to Khabarovsk and Vladivostok.

When the Japanese withdrew from the northern half of the island of Sakhalin as a price they demanded and secured a "concession for half of the oil out-put of Sakhalin." In 1939 the output of Sakhalin was 3,60,900 tons and the reserve is estimated to be 300,000,000, tons.

"The Soviet Government has very recently scored a remarkable diplomatic victory in compelling the Japanese, 26 years before their lease expired, to abandon their oil and coal concession in northern Sakhalin and to withdraw at once, receiving only in return the ludicrously small compensation of 5,000,000 roubles for their property and a promise of an annual delivery of 50,000 tons of oil for 5 years after the end of the Pacific War. Since the Japanese rely on Sakhalin for almost a quarter of their domestic supply of oil, the complete immediate stoppage of deliveries is a serious loss to their straitened economy. The Russian victories in the West have had their first repercussion in the East." (*The Economist*, 8-4-44).

Kamchatka

Kamchatka is a volcanic region. Till recently, it was considered a remote and outlandish place but now a new railway which will connect Kamchatka with the Trans-Siberian Railway is being built up and its "wild rugged scenery and abundant geysers and hot springs are making it a delightful holiday resort."

Fishing is the chief industry. At one time there was only one doctor for the whole of the peninsula but now there are over 100 medical centres. Innumerable schools have been established. The children of many nationalities —Kamchadals, Koriaks, Chuckchees, Yukagirs, Eskimos, Lamuts and Aleuts—get education and are being trained to be important citizens of U.S.S.R.

"Before the start of the Third Five-Year Plan in 1938 and before the double tracking of the Trans-Siberian Railway, and the expansion of Far Eastern manufacturing facilities the situation of the Soviet Far East in a prolonged struggle would have been very difficult. This is not so today. The industrial development east of Lake Baikal has made it possible for a prolonged and successful defensive warfare."

The most spectacular of all the achievements has been the conquest of the Arctic, conquest not of domain but of adverse conditions of life.

North Sea Route. "The Northern sea route, the sea way across the top of the world" was a dream of explorer after explorer. The northwest passage around the world and back to Europe has always existed. But for three centuries frustrated explorers failed to find it. Cabot, Hudson, and Frobisher all thought that there must be some opening from the North Atlantic but the gods of chance were against them. The only navigable route led through another ocean on the other side of a continent. When Captain Cook sailed into the Pacific in the year of our Independence and pushed into the Behring Strait he was probing towards it. But it remained for the Russians to open it up in our own day" (*New York Times,* Nov. 23, 1941).

The development of the Arctic shipping, however, was not left by the Soviets to gods of chance but was integrated with the expansion of industry in the whole of Russia and was carried forward with characteristic vigour and determination.

The Polar research stations have mainly been responsible for the systematic development of shipping. More than sixty Polar research stations have been established along the entire northern coast and on remote islands in the Arctic. There are five key stations to collate all the information collected by these Polar stations, at Dickson Island, Tiksii Bay, Cape Chelyushkin, Anadyr and Amderma.

A fleet of ice breakers has been developed to keep the path open for shipping and now there are over 40 ice-breakers to guide an Arctic fleet of 100 vessels. Now regular voyages are made and cargo goes direct from European Russia by way of Murmansk and Archangel eastwards through the Northern Sea route to Yakutia reaching their destination in two months instead of six and at less cost. The war brought more development : it has been reported that an all winter shipping service between Seattle and Archangel would be established. What was a dream has materialised.

The development of this route has effected a saving not merely in time but in labour as well. "Formerly a large part of the freight destined for northern Yakutia was carried from Moscow to Irkutsk over the Trans-Siberian Railway, then by motor truck to the head waters of the Lena, and down this river by raft and barge. Other shipments went all the way to Vladivostok, there to be reloaded on cargo vessels for shipment north via the Behring Strait and westwards along the seaway to the mouths of the Kolyma, Yana, Indigirka and Lena rivers. Today cargoes go direct from European Russia by way of Murmansk and Archangel to Yakutia and this has lifted a burden of many thousands of tons of freight annually from the Trans-Siberian Railway" (*S. A.*).

From the military point of view, too, the development of this route has been of great significance and of immense use. Ships now are able to voyage from Seattle

on the American coast to Archangel, a distance of only 6,000 miles and thus North Atlantic has been linked up with North Pacific and the Pacific front has been unified with European front. In the evolution of a grand allied strategy, the northern sea route is destined to play the most vital role.

Not merely the sea route but the whole of Arctic Siberia, where "until recently only the nomads, the Polar bear, the wolf and the fox were the inhabitants" with the civilised man as an occasional and rare visitor, has been opened up. The opening of the Arctic "has been comparable in economic importance to the opening up of America." A vast new continent has been made available for human colonisation. To develop this area the Northern Sea Route Administration was established in 1932 and stupendous progress has taken place within the last ten or fifteen years.

"The air plane, the radio, and the ice-breaker began to open the Arctic to commerce and industry. Permanent Polar research stations, 68 in number, were established. Seas were opened and ports were built to accommodate ships. Arctic began to throb with human activity." (*S.A.*).

Many towns have sprung up along the coast and near the mouths of the great Siberian rivers.

Igarka is one of the newest ports in this region. It affords a convenient place for river craft to transfer cargo to and from ocean going vessels. The construction of this port town was begun only in 1928. It was thought that no permanent quay could be built because of the great depth along the river close to the bank. But scientific ingenuity and human perseverance have enabled the Soviets to build such a quay and, in 1936, a permanent quay half a mile long with seven mooring piers had been built. In the town of Igarka rose saw mills, and electric power plant. Water supply runs through the town.

The Arctic land has been brought under cultivation. By a careful experimentation with seeds and fertilisers, potatoes, onions, turnips, wheat, barley and oats are now grown on land that was never cultivated before.

There are only about half a million people for all this Siberian Arctic. But they are, however, divided into 30 ethnic groups. When distance was an effective barrier to social exchange these ethnic groups lived in isolation, and, there could be neither progress nor development of any culture. None of the groups was a properly settled people and the seasonal trek of the reindeer on which they mostly depended for their occupation and livelihood made these people nomadic. Not one of their languages had an alphabet. To-day there is a thorough metamorphosis. Scientific and collective reindeer farming has enabled these people to settle down. Schools have spread. There are motion picture houses showing pictures with the sound track of the native languages, and a travelling Arctic theatre gives dramatic performances. Medical facilities have vastly improved. In 1913 there were only 53 hospitals in the whole of Siberia and many of them were reserved for the Russian ruling families. Now, there are more than 400 hospitals in Siberian Arctic alone, and every one of them is thrown open to all irrespective of differences of nationality.

The tremendous development achieved in this region can be visualised by the history of the Nentsi tribe. A vast area, more than half of which is situated beyond the Arctic Circle, lies in the lower reaches of the Ob and the Taz rivers on the large Yamal Peninsula which extends far into Kara Sea. This has been inhabited for centuries by the Nentsi. The land abounds in fur-bearing animals, fish, game and reindeer. In former times, the Nentsi were doomed to a squalid existence. The Tzarist Government collected a heavy tribute in furs. People were robbed by the Russian fur merchants and their native princes and hamans, medicine men. Under Tzarism, the Nentsi were fast dying out. A Russian Encyclopaedia published in 1899 contained the following information about the Nentsi, "This tribe numbering sixteen thousand is dying out."

But the Nentsi were saved from extinction by the Soviet State. Soviet power was established in that area in May 1919. Life of the Nentsi changed beyond recognition in Soviet times and especially since the Yamal Nenets national area was set up in 1930.

In the course of ten years more than half of nomad Nents population settled on land. Most of the families, engaged in hunting and fishing, united in producers' co-operatives, collective farms. Hunters of the collectives turn over all the furs they trap to their central co-operative stores which in turn take care of supplying needs of the hunters. Prices of all the manufactured goods are the same even in the most outlying settlements. The quantity of furs trapped by the Nentsi hunters has grown ten times over in the past decade. The Nentsi have also taken up breeding of silver foxes, an occupation entirely unknown in the past.

Fishing collectives turn over their catch to the state canneries which provide them with all supplies and fishing equipment. There are twelve state canneries, six of them set up in war-time.

Herds of reindeer owned by the Nenetskii collective farms have quadrupled since their establishment. Considerable help in the proper organisation of reindeer breeding has been given by the scientific experimental station which specialises in the study of animal disease. A zonal reindeer breeding station and reindeer breeders school have been set up in the area. Large state reindeer breeding farms have also been established.

Farming has been introduced in the far north into the zone of eternal frosts where the population never saw vegetables in the past. A zonal agricultural station has been established there. In 1940 barley, peas, flax, hemp, tobacco and vegetables were planted over an area of 470 acres and some 1650 square metres of hothouses. Yields obtained there measure upto those received in the old farming regions of the Soviet Union.

With the organisation of collective farms stock breeding was also taken up. In addition to reindeer, the Nentsi began to raise cattle, sheepdogs and horses. In 1940 collective farms in the Yam Nents national area had thirteen stock sections. The "Dawn" collective farm, for example, had ten acres of crops in open ground hothouse and hot-

beds, stud section and silver fox section. In 1943, the farm received an income of more than one million roubles. Of this sum more than a half was income from farming and thirteen per cent came from stud and silver fox farms.

In the past, the local population was deprived of all medical aid. In 1940 the area had twelve hospitals, eighteen dispensaries and twenty-one medical points attended by junior medical practitioners and obstetricians. Working in the area are thirty-eight physicians and ninety-five junior medical practitioners and obstetricians. They render medical aid to the Nentsi as well as to other population residing in the area, which has a spacious hospital with ninety-six beds fitted out with four departments, dental office, laboratory and X'ray office. Physicians visit patients in the most remote parts of the Tundra.

In the Tzarist times the Nentsi were unable to read and write, and, moreover, did not have even their own written language. In 1943 there were fifty-six schools, out of which nineteen were secondary schools in the area. Special boarding schools had been set up for children of nomads. A number of Nentsi are studying at higher educational establishments in Omsk region, Moscow and Leningrad.

Functioning in the Yamal peninsula are the national pedagogical school, school for training zoo-technicians, two vocational schools, museum of local history and ethnography, ten libraries and thirteen reading rooms, five houses of the Nenets, and eight red tents set up at nomad settlements. Six regular newspapers and a hundred and fifty wall newspapers are published in the area. An important part in spreading enlightenment among the people is played by the House of Nenets where best Soviet films are shown, plays staged and amateur art groups function. At the regional House of Nenets in Salekhard are presented plays by Gogol, Ostrovsky, Borky, Molière, and Lope de Vega. These plays are presented mostly in the Nenetskii language.

A national Nenets literature has come into being. The first play written by the Nenets was presented during the celebration of the tenth anniversary of the formation of Yamal Nenets national area.

Bone and ivory carving were special industrial arts. Snuff boxes, hair ornaments, chess men, drinking cups carved by these natives were highly prized as early as the 18th century and this trade is now in a very flourishing state.

The once nomads are now providing meteorologists, wireless operators, truck drivers, air mechanics and even airpilots for the Red Army.

KAZAKHSTAN

It covers an area of 10,09,800 sq. miles : yet its population is only 61,46,000. The native population was long ago driven away from the fertile regions by the Russian colonists. Cattle breeding by the nomadic people and primitive agriculture by the settlers were the only occupations of the people before the Revolution.

The revolution and the socialist reconstruction brought improvement on an immense scale. " Planned

economy, artificial irrigation of desert places from the Aral Sea and the more rational live-stock breeding in the State Farms has changed the face of Kazakhstan. Grain is now produced in the north and north-eastern Kazakhstan and Kazakhstan has become the bread-basket of the Union." (*S. A.*).

Collectivisation and mechanisation of agriculture were mainly responsible for this progress. In 1940 there were 8,000 collective farms, 330 tractor stations with 25,000 tractors, 10,000 harvesters and hundreds of cotton pickers.

An important recent discovery was that two native plants yielded good rubber. Immediate tests were made and now thousands of acres are under plantation for rubber.

In accordance with the policy of the development of local industries, industrialisation was taken in hand during the Five-Year Plans. Textile mills, flour mills, fruit canneries and creameries have been developed. In addition there are factories connected with rubber preparation.

The industries connected with the second important and immemorial occupation of Kazakhstan like stock raising have also sprung up. There are meat packing plants at Semi-palatinsk. Tanning and wool processing have also developed.

Industrialisation has left its mark on the growth of urban population, and the rapid growth of industries can be gathered from the following table showing the increase of population in the largest cities of Kazakhstan :

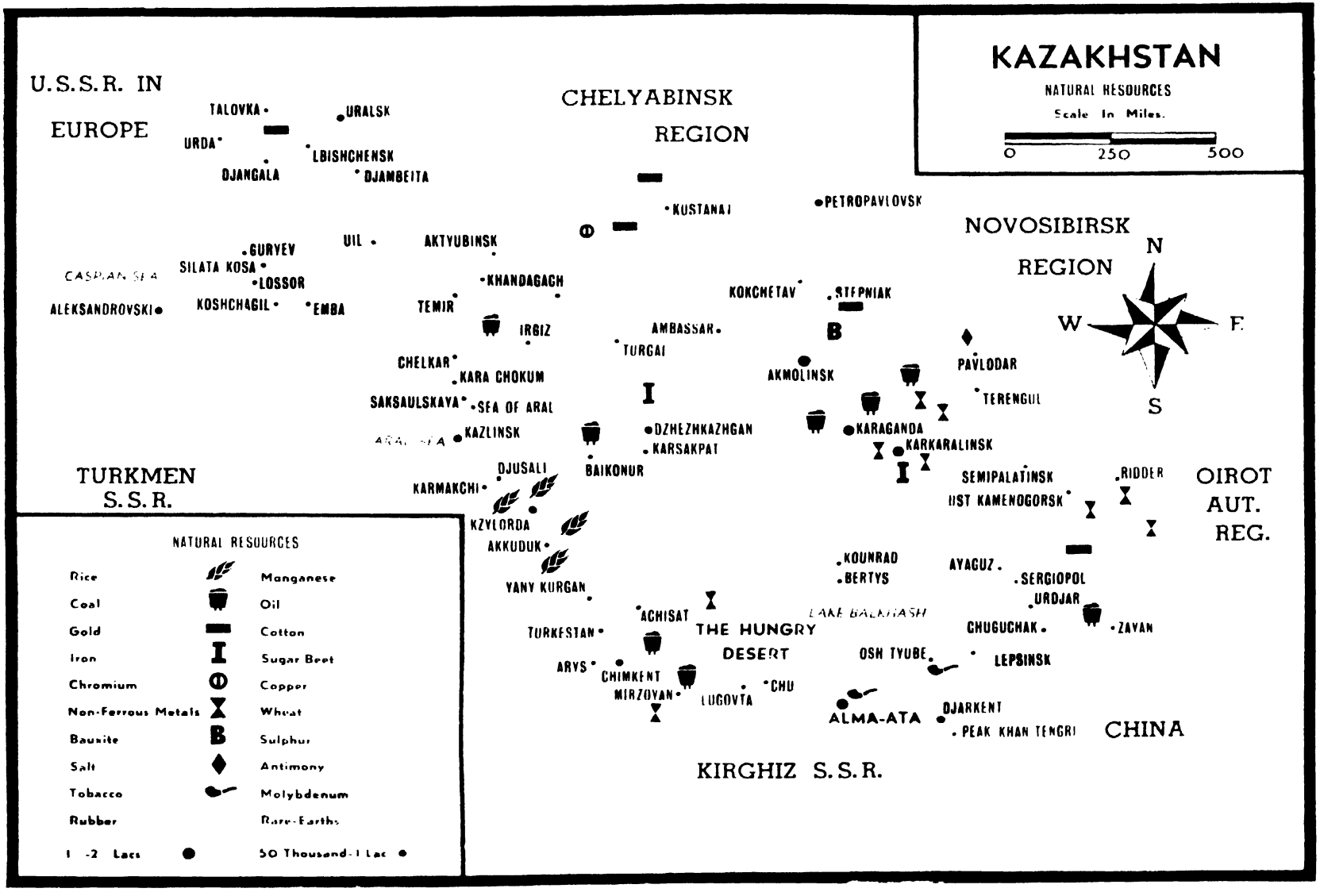
Name of City	Population		
	1913	1926	1939
Alma Ata	41,506	45,395	2,30,528
Semipalatinsk	34,300	56,871	1,09,779
Petropavlovsk	42,340	47,361	91,678
Chimkent	15,756	21,018	74,185
Uralsk	46,380	36,352	66,201
Guryev	10,992	13,529	57,975

Between 1928 and 1939, 120 big industrial plants were built. The number of workers rose to 600,000. Since 1929, 44 new cities with plants and industries have sprung up. In 1940 the total industrial output of the republic was 22 times that of 1931 and the growth in Kazakhstan has been twice as rapid as the growth in the whole of the Soviet Union.

But the most significant development was the exploitation of the mineral resources of the area. "The mountain table lands of Kazakhstan contain incalculable riches—100,000 million tons of coal, oil, vast deposits of gold, lead, zinc, copper, chromites, nickel, phosphites, iron, aluminium ores, tin, rare metals and large deposits of mineral salts and building materials." (*S. C.*)

The chief centres of mineral deposits are : "The basin of the river Emba for oil : southern ridges of Ural mountains, the Orsk district and the Ust Kamenogorsk and Zayssan district in the east for gold : the Mugodzhar mountains, Karaganda, Ekibas-tuz and Karatau in the south for coal. Copper, silver, zinc and lead are found at Atbassar on the Lake Balkash in the famous Ridder dis-

Uzbekistan : *Once dogma-ridden and purdah-ridden. Now a centre of industry and the Lady Secretary answers the phone.*


KAZAKHSTAN
NATURAL RESOURCES
Scale In Miles.
0
250
500
U.S.S.R. IN EUROPE
CHELYABINSK REGION
NOVOSIBIRSK REGION
N
W
E
S
TALOVKA
URALSK
URDA
LBISHCHENSK
DJANGALA
DJAMBEITA
KUSTANAI
PETROPAVLOVSK
GURYEV
UIL
AKTYUBINSK
SILATA KOSA
LOSSOR
CASPIAN SEA
KHANDAGACH
ALEKSANDROVSKI
KOSHCHAGIL
EMBA
TEMIR
KOKCHETAV
STEPNIAK
IRGIZ
AMBASSAR
TURGAI
CHELKAR
KARA CHOKUM
AKMOLINSK
PAVLODAR
SAKSAULSKAYA
SEA OF ARAL
TERENGUL
ARAL SEA
KAZLINSK
DZHEZHKAZHGAN
KARAGANDA
KARSAKPAT
KARKARALINSK
TURKMEN S.S.R.
DJUSALI
BAIKONUR
SEMIPALATINSK
RIDDER
KARMAKCHI
UST KAMENOGORSK
OIROT AUT. REG.
KZYLORDA
AKKUDUK
KOUNRAD
AYAGUZ
BERTYS
SERGIOPOL
YANY KURGAN
URDJAR
ACHISAT
LAKE BALKHASH
TURKESTAN
THE HUNGRY DESERT
CHUGUCHAK
ZAYAN
OSH TYUBE
LEPSINSK
ARYS
CHIMKENT
CHU
MIRZOYAN
LUGOVTA
ALMA-ATA
DJARKENT
PEAK KHAN TENGRI
CHINA
KIRGHIZ S.S.R.
NATURAL RESOURCES
Rice
Manganese
Coal
Oil
Gold
Cotton
Iron
Sugar Beet
Chromium
Copper
Non-Ferrous Metals
Wheat
Bauxite
Sulphur
Salt
Antimony
Tobacco
Molybdenum
Rubber
Rare-Earths
1 -2 Lacs
50 Thousand-1 Lac

trict and at Chimkent. Salt is extracted near Pavlodar from the Koryakov lake." (*U.S.S.R.*).

The discovery of rich deposits of coal at Karaganda has, in fact, introduced a revolutionary development. Originally the Urals industrialisation was based on coal supplies from Kuznetsk. The discovery of coal at Karaganda has brought coal nearer to Urals and, thereby, reduced the load of transportation. Further, Central Asia need no longer depend for its own industrialisation on coal from Siberia, but can depend on its own resources.

The Altai region has also been found to be rich in mineral deposits. Cobalt, mercury and antimony have been prospected in this region. Chromium deposits were also discovered.

Mining has now become a very important occupation of Kazakhstan, and industries to cater to the requirements of mining activities are rapidly springing up. Copper refineries and smelting plants at Djerkazben and Kounrad have been erected. Plants at Babelulsk for processing lead, zinc, copper, gold, nickel, antimony, tungsten and tin have been erected. Large scale machine building was taken in hand.

The Pribalkhash copper smelting combinat refines more than 100,000 tons of copper. At Babelulsk are found not merely copper mines but lead and zinc also, and the Karaganda copper mills are of very great importance. They are second in production only to Donbass mills in the Union. The once small dirty village of Karaganda has grown into a prosperous city, and "it is the discovery of coal at this place that achieved this transformation and paved the way for a more rapid industrialisation of not merely Kazakhstan but the whole of Central Asia."

Sixty per cent of Soviet Union's known resources of lead and 50 % of its zinc are supplied by Kazakhstan : and in oil and coal deposits it occupies the third rank. A Kazakh official recently remarked that nine out of ten bullets fired on the Soviet front contained lead from this republic. It now holds a rank second only to the S. F. S. Republic in the production of non-ferrous metals. It has become the new Ukraine supplying cotton, sugar, grain and cattle in increasing quantities. (*Business Abroad*, Feb. 1944.).

The oil centre at Emba covers roughly an area of 156,000 sq. miles and there is a pipe line 434 miles in length carrying oil to the modern refinery at Orsk in the Urals.

To make possible this rapid industrialisation and mineral exploitation, the means of communication had to be intensively developed. At the present time there are four railway lines. The first is the Chaklov-Tashkent Railway. The second and the most important of the railway lines of this region is the Turk-Sib railway built in 1930. This connects Kazakhstan's capital, Alma Ata, with Tashkent and Semipalatinsk. This line paved the way for a proper exploitation of the resources of this region : for this railway was mainly constructed for the purpose of bringing Siberian coal to Central Asia and accelerate the industrialisation. The third railway connects this region

with the Trans-Siberian Railway system at Petropavlovsk. The fourth line is as recent as 1939 and connects Urals with the Karaganda coal fields and was specially built to bring coal nearer to Magnitogorsk.

Water ways, too, have been developed and the river transport has been extended. Kazakhstan can now boast of 7,200 miles of inland waterways.

Electric Power-distribution also has made tremendous strides. " In 1937 Kazakhstan Hydro electric plant generated 290 million kilowatts." (*Bulletin of the Soviet Union*. March 18th, 1942.).

The main products which Kazakhstan exports to other Union Republics and abroad are cattle, meat, wool, butter, leather, fish, salt, grain, copper and santonin. It depends on imports of manufactured goods, timber, iron, iron ware and sugar from other parts of the Union.

Cultural progress has kept pace with economic development. Education and public health have received special attention. The progress in education in this area can be realised from the fact, that at the present time there are 116 technical schools and 21 colleges with over 10 lakhs of students while under the Tzars more than 50 % of the people were illiterate nomads. As a result of German invasion of Ukraine, many educational institutions with entire staff and students have migrated to Kazakhstan. Kiev university as well as Kharkov University have been moved to Alma Ata. Most of the motion picture studios, too, have moved to this place, and Alma Ata has now become the Soviet Film Capital beyond the Urals.

It will not be out of place to mention here that the Russian film industry was developed on a large scale and the author had the privilege of seeing films like *Potemkin, Mother, Ten Days that Shook the World* and others which were selected for exhibition in Berlin in 1925 and were acclaimed as the best motion pictures by the leading film critics of the Continent. However, it is true, as Mr. Roger Manvell writes in *Britain To-day* (Sept. 1944) that Russia kept her films largely to herself. Further, he writes : " Known for almost twenty years as being one of the most progressive centres for artistic experiment in film production, the Soviet Union sends prints of many of her films to be seen in Britain, notably at the Tatler cinema in London. But her films are still designed, quite naturally, for home consumption, and the general level of achievement in feature films is impressive for sincerity of purpose rather than for technical finish, apart from certain exceptional films made periodically by key directors. But Russia alone has produced a University for the study of all aspects of film production and research in Moscow, an example worth the attention of the other major film-producing countries in the world. "

According to the latest news published in *News and Views* of the Soviet Union of 15th November of this year the Lenfilm and Mosfilm studios, evacuated from Leningrad and Moscow, worked the first two years of the war in Alma Ata, capital of Kazakhstan. Large film studios created during this sojourn remained in Kazakhstan and the people of that republic now have use of a well-staffed and and equipped production base for the development of their national cinematography. The Kazakhstan Studio is now

producing the film *Abai*, the life and work of Abai, outstanding Kazakh thinker and poet of the end of the nineteenth century. The film is being produced by the Russian regisseur, Grigori Roshal, who is teaching young Kazakh film workers the art of the cinema and training new Kazakh screen actors and actresses. The film will have captions both in Russian and Kazakh and will be released in 1945 to coincide with the centenary of Abai's birth.

There are about 40 theatres staging plays. They "gave some 7,000 performances last year." (*News and Views* from the Soviet Union, Aug. 29, 1944). From times immemorial, the Kazakhs were lovers of art and respected artists and even to this day, in the days of hectic industrialisation, the country's supreme hero and best known man is not a worker, a warrior or a politician but the native poet, ninety five year old Jambul Jambaev whose lines on Stalin have become a household lyric :

Arrows are my songs
I am a marks-man keen
Let not the foe rejoice I am old
Strong is my heart
It beats as one with yours
You gave my folk new life
They have heard your call.

Central Asia

The area of Central Asia consists of four Soviet republics, Uzbekistan, Turkmenia, Kirghizia and Tadjikistan and the following table gives the present area and the administrative centres of these republics :

Name of Republic	Capital	Territory in sq. Kilometers
Turkmenia	Ashkhabad	4,43,600
Uzbekistan	Tashkent	3,78,300
Kirghizia	Frunze	1,96,700
Tadjikistan	Stalinabad	1,43,900

It extends from the Caspian Sea in the west to the borders of China in the east and touches Kazakhstan in the north and Persia, Afghanistan and India in the south.

The climate of Central Asia is continental and the contrasts in temperature are very great. In some places near the Caspian Sea the land is below sea level, while in the east the mountains of Pamir and Tian-Shan have the highest peaks in the Soviet territory.

The majority of the rivers of Central Asia are mountain streams which dry up as soon as they reach the sandy desert places. Notwithstanding this they are of very great use, having been serving as natural irrigation systems and rendering the land suitable for agriculture.

Central Asia is the land of mountains and oases : cattle breeding and agriculture have been its main occupations from times immemorial. The chief crop, however, is not food grains but cotton : though wheat, barley and millet in Tadjikistan, rice, maize, beans and sugar beet-root in Uzbekistan and grapes in Turkmenia are cultivated.

The Central Asian interest in cotton is not new, though the Soviet government has stimulated its large scale cultivation. " Cotton of inferior sorts has been grown here

for centuries. One of the chief incentives of the Tzars for extending their imperial power to remote Central Asia was their determination to obtain cotton for Russia." (*D.I.S.*) After the revolution cotton assumed special significance, since Soviet Union aimed at being self-sufficient in her cotton needs and put in "no end of studies, planning and money into cotton." New schools of training for cotton experts have been established and the peasants have been taught and encouraged to grow cotton of a higher quality. Collectivisation, mechanisation and scientific farming were the means adopted.

Not merely the sown area has increased from 3,25,000 hectares in 1924 to 12,44,000 in 1934, but the total production also has increased 500 times. In addition the long staple cotton has been substituted for the local variety.

The vast increase in sown area was to some extent also due to the new irrigation works taken in hand by the Soviets. In Tadjikistan, for example, the new irrigation system introduced in the Vakhsh Valley was designed to convert 2,47,000 acres of desert land into fertile fields for cotton. This irrigation system, covering a net work of canals, was a marvel of engineering feat. The main canal had to be cut through a solid rock.

In the sphere of collectivisation and mechanisation, there has been tremendous progress. In 1924, there were barely 358 tractors in the whole of Central Asia ; by 1934 they multiplied to 14,000.

The following table gives a graphic idea of the modernisation of agriculture :

Country	No. of Collective Farms	% of area collectivised.	No. of Tractor Stations	No. of State Farms	Tractors	Harvester Combines
Uzbek	8452	99·8	175	79	22722	1497
Tadjik	3862	99·2	48	19	3832	82
Kirghiz	1849	98·3	63	43	5128	779
Turkmen	1654	99·6	52	27	4225	175

Development of agriculture and industrialisation have in their wake stimulated the growth of population and the following table bears witness to this :

Country	Census 1926			Census 1939		
	Urban	*Rural*	*Total*	*Urban*	*Rural*	*Total*
Turkmen	136982	861172	998154	416376	837609	1253985
Uzbek	1012274	3553158	4565432	1445064	4837382	6282446
Tadjik	106003	926213	1032216	251882	1233209	1485091
Kirghiz	122333	879364	1001697	270587	1188714	1459301
	1377592	6219907	7597499	2383909	8096914	10480823

During the present war industry has been further expanded on a scale which dwarfs the development of preceding decades of Soviet rule.

For example, in Uzbekistan, the output of electricity was doubled in three years ending in 1943. Yet industries developed so fast that a new group of hydro-electric projects had to be commenced.

Uzbekistan

This is the most populous of the Central Asian republics. It has an area of 146,000 sq. miles and is

roughly of the size of Bengal and has a population of 65 lakhs.

Its cities have been famous through centuries. Bokhara and Samarkand were centres of Moslem culture and civilisation. They were rich trade centres, though Uzbekistan sustained itself only by primitive agriculture.

Collectivisation and modernisation of agriculture have progressed hand in hand here as elsewhere. Ninety-nine per cent of the peasants are now united in the collectives and in 1938 they covered an area of 25 lakhs of acres. Sixty per cent of the land was under cotton cultivation.

Irrigation has played an important part in the development of agriculture, especially in bringing new land under cultivation. As recently as 1942 the new Tashkent Canal was constructed and this has brought under cultivation 1,20,000 acres of land. The Ferghana canal is the greatest irrigation system in the whole of U.S.S.R. "It is 270 K.M. long and has one of the largest dams in the world. It was built in the record time of 50 days by 1,60,000 collective farmers from the Ferghana Valley and the neighbourhood districts of Tadjikistan which borders Uzbekistan and also benefits from this irrigation scheme." (*S. C.*)

During the Five-Year Plans industrialisation made rapid progress. A huge electrochemical combinat, and a textile combinat have been constructed and a large nitrate plant for the production of fertilisers was completed at Chirchik in 1941, so that the cotton fields of Central Asia could be supplied locally.

The industries at Tashkent alone, in 1938, had a total output greater than the combined industries of Afghanistan, Turkey and Iran.

Mining has become a very important occupation. Uzbekistan is the third largest producer of copper in Russia : there are copper mines at Almalyk, 50 miles from Tashkent. Large deposits of wolfram, molybdenum and even magnetic iron have been discovered. But of special importance was the discovery of coal. Central Asia had depended on coal from Siberia or Don basin. But local coal supplies at Stalinugol-Tashkent have changed the situation. "The coal of Uzbekistan is used at present mainly on railways but recent reports tell of construction under way of a blast furnace and a rolling mill, the first to be built anywhere in Central Asia. The metallurgical plant will exploit newly discovered iron and non-ferrous metal deposits." (*S. N.*, March 18, 1942.).

Oil, too, has been discovered and in 1938, 2,50,000 tons of crude oil were produced while locally 1,23,000 tons were refined.

The whole republic is electrified : and constantly new power stations are being constructed. During 1943, five new hydro-electric stations were under construction. The latest hydro-electric plant at Forshakhad on the Syr-Darya river is one of the biggest power stations in the whole world. (*N. & V.*).

Ferghana valley is one of the most fertile regions and natural gardens of the world, and is between Tashkent and Samarkand. Excellent crops of cotton, rice and fruit are

obtained here. Tashkent, the capital of Uzbekistan, is the economic centre of the whole of Central Asia.

Along with industry, extraordinary cultural progress, too, has been achieved. In the Tzarist days education was a luxury of the privileged minority. Now schools are meant for all. There are over 132 high schools and over 44 colleges in Uzbekistan. It is interesting to note that Uzbekistan has today a greater number of educational institutions and students than even Sweden, one of the most progressive countries in the whole world. The rule of the Mullahs has been abolished, and, though people still profess Muhammadan faith, priestly tyranny no longer dominates their cultural life. Uzbekistan is modern with 700 motion picture houses, 1,200 clubs and 1,300 libraries.

The Uzbek theatre is a vital force in its cultural development. "Before the revolution the only elements of drama in Uzbekistan were the quickfire back-chat, bandied about in the bazaars in a circle of listeners, puppet shows with topical gags, dervishes and dancers on tight rope and the Bakshi delighting their listeners with folk tales recited in metre." (*N. S. T.*).

Today there are about 50 theatres in the Uzbek land and the works of Gorky, Pushkin, Schiller, and Shakespeare, are staged in the Uzbek language. In addition, there are a number of Uzbek dramatists who have been writing plays about Uzbek problems and the great deeds of the civil war in Central Asia.

Uzbekistan has provided a refuge to Jews fleeing from enemy occupied areas and over a million Jews from western Ukraine, white Russia and Bessarabia and northern Bukovina have found shelter there.

The transformation of Uzbekistan from an exploited Tzarist colony to a great modern state has been symbolised in the development of its capital, Tashkent.

Tashkent "was a dirty, backward, mal-odorous city before the revolution." It was divided into new and old. The natives lived in the old city, while in the new city lived the Russian officials and their native hangers-on. To-day it is a city with a population of 600,000. The Russians and the natives live side by side on equal terms and great spirit of co-operation pervades. This province was very malarial. "Malaria used to be the pest of these places, but is not to-day . . . . . this year there is not a single case of malaria." (*N. T. T.*, Aug. 29, 1944).

Tashkent has become not merely the administrative but the cultural centre of Uzbekistan even as Uzbekistan was transformed from a backward country to a flourishing State.

The part played by Uzbekistan in this war has been very noteworthy. Apart from contributing 'dashing horsemen and valiant fighters,' it has provided a home for hundreds of refugees, specially children.

"Uzbeks have always loved children tenderly. According to old sayings, children in Uzbekistan are the blessing of fortune. Uzbeck families are always numerous and friendly. When the trains and lorries began to set down in the towns of Uzbekistan, thousands of children

who had lost their parents and in whose eyes lurked the horror of what they had been through, the Uzbek people took the little orphans lovingly to their hearts. Led by the Uzbek women, the movement developed spontaneously. In all the towns of Uzbekistan in the children's welfare departments of the People's Commissariat of Education, strings of people appeared asking to be allowed to adopt children. Old men and young people, workers and collective farmers vied with one another in securing children."

"Many factories, too, with all their equipments were transferred to Uzbekistan where the silent machinery came to life again and the 'stilled hearts of the factories and plants set beating.' To achieve this the Uzbek people had to work strenuously. There were no buildings on Uzbek soil suitable for housing the anvils on which weapons are forged. Lathes and aggregates were deposited on the bare ground, on waste land set aside for evacuated enterprises. The lathes started work, still in the open as soon as electric current could be supplied. And meanwhile the engineers were planning the buildings for future shops." (*I. L.*, Vol. 3, 1943.).

Tadjikistan

This republic is the size of our Sind province and was formed into a Union republic only in 1929. So it is the youngest republic in the Soviet Union. Pamir ranges, "the roof of the world," are part of this republic.

At one time most of Tadjikistan was either desert or inaccessible jungle and mountain sward. Now even the Pamir ranges are cultivated. "It was originally believed that agriculture was impossible in the eastern sectors of the Pamirs. But it turns out that the factors, individually having an unfavourable influence on plant life, together actually create favourable conditions. They facilitate accumulation of sugar in plants." (*Moscow News*, Dec. 24, 1941).

An excellent motor road—called the highest motor road in the whole world—connects the once inaccessible Pamirs with the railways. In fact, the development of communications was a remarkable feature. "Before the republic was founded, there were almost no roads in the whole of this area. To-day newly built railway lines link the capital Stalinabad with Tashkent in Uzbekistan. Narrow gauge railways service the fertile valley of the Vaksh river. Highways carved for the most part out of solid rock in the mountains connect Stalinabad, Leninabad, with Khorog and regular air lines are in operation." (*S. A.*).

The exploitation of mineral resources was facilitated by this development of communications. In the Kara Murza range of the Pamirs gold, silver, lead, bismuth, arsenic, tungsten, zinc, tin, uranium, and radium are mined.

In the Gissar range sufficient phosphate has been discovered to satisfy all Central Asia's fertilizer needs. Oil, too, is found and in 1938 yielded 3,000 tons of petrol. New prospecting is going on unceasingly.

As in other Central Asian republics cotton cultivation is extensive. In addition, in the Ferghana valley fruits, rice and sugar beets are grown. Industrially, too, the country has made enormous progress. Hydro-electric

stations have been developed and, by 1938, there were 7 stations. There were 92 large enterprises including textile mills, cement works and meat packing plant. "Articles manufactured in Stalinabad and Leninabad are beginning to flow across the borders into Afghanistan and China so that Tadjik products are now obtainable in the markets of Khasgar in China and in the stores of Kabul. Tibetans now buy textiles woven in Leninabad Silk Weaving Mills, the largest in Central Asia. (*S. A.*).

The famous medieval silk road from China to Europe passed through what is now Tadjikistan and Kirghizia and and the traditions have survived, which have enabled the establishment of modern mills at Leninabad and Kokand which "are now providing thousands of parachutes for the Red Army" (*S. A.*).

Along with industry, the medical service also has improved. "Swallowing little pieces of paper with quotations from Koran was considered the most efficacious remedy against disease. Wearing amulets was the sole prophylactic the natives ever knew" (*D. O. S.*). Even after the revolution, for some time, disease could not be properly tackled. Upto 1929 there was only one dispensary. But by 1931, there were 61 hospitals, 10 in the cities and 51 small hospitals in the villages.

Apart from hospitals, many health resorts have been developed. To combat disease properly, medical research institutions have been started.

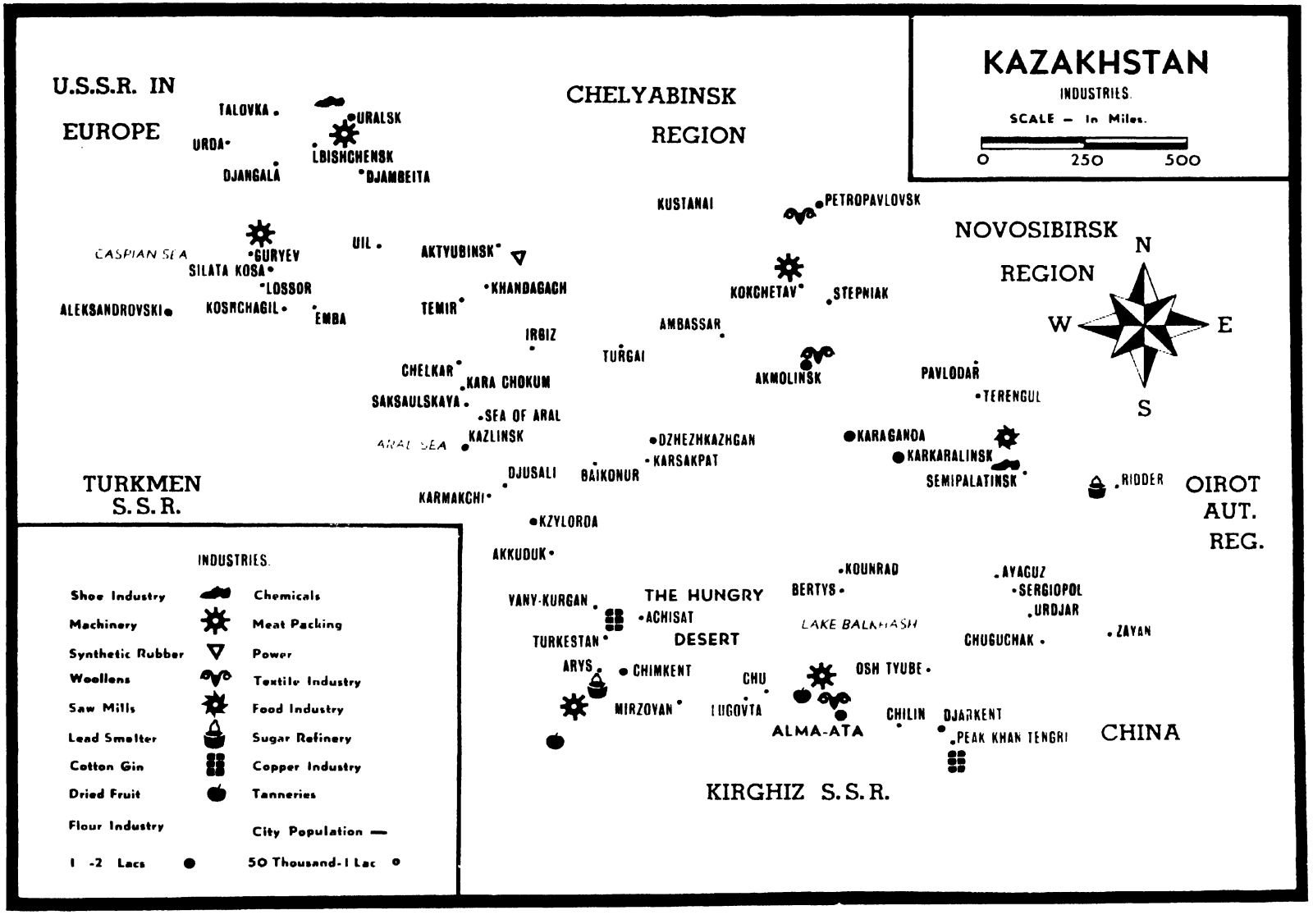
In the field of education, too, the republic made good progress. There were some schools in the republic of Tadjikistan previously but in almost all of them only Koran was taught and only about 0·5 % of the population was literate. After the revolution, schools sprang up every where. Tremendous popular enthusiasm developed and a slogan "Liquidate illiteracy within the next couple of years" was taken up by masses in right earnest and practically carried into effect.

In 1943 there were 4,700 elementary schools, 40 high schools, 24 technical schools, and 4 universities with over 2,90,000 students.

The cultural awakening culminated in the development of a national Tadjik theatre. This was founded about the year 1933, when the first drama was enacted. "So simple were the minds of the native actors that one of them, fresh from village life, murdered his young wife being so impressed by her powers in a love scene with another actor that he thought she was unfaithful." (*N. S. T.*).

Yet last year the same theatre produced *Othello* on Pushkin's formula that "Othello was not jealous, on the contrary he was trusting" and the sets reproduced Venice and Cyprus in all their renaissance glory, making good use of steps and different levels. Starting with production of translated plays, Tadjiks went on to develop their own drama, and native dramatists are now composing plays to be staged by the Tadjik theatre. Now there are over 22 theatres in Tadjikistan.

The press has also developed well and there are seventeen newspapers in local language.


KAZAKHSTAN
INDUSTRIES.
SCALE — In Miles.
0
250
500
U.S.S.R. IN EUROPE
CHELYABINSK REGION
NOVOSIBIRSK REGION
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TALOVKA
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LBISHCHENSK
DJANGALA
DJAMBEITA
KUSTANAI
PETROPAVLOVSK
CASPIAN SEA
GURYEV
UIL
AKTYUBINSK
SILATA KOSA
LOSSOR
KHANDAGACH
KOKCHETAV
STEPNIAK
ALEKSANDROVSKI
KOSMCHAGIL
EMBA
TEMIR
AMBASSAR
IRGIZ
TURGAI
AKMOLINSK
PAVLODAR
CHELKAR
KARA CHOKUM
TERENGUL
SAKSAULSKAYA
SEA OF ARAL
ARAL SEA
KAZLINSK
DZHEZHKAZHGAN
KARAGANDA
KARKARALINSK
KARSAKPAT
DJUSALI
BAIKONUR
SEMIPALATINSK
RIDDER
TURKMEN S.S.R.
KARMAKCHI
KZYLORDA
OIROT AUT. REG.
AKKUDUK
KOUNRAD
AYAGUZ
VANY-KURGAN
THE HUNGRY
BERTYS
SERGIOPOL
ACHISAT
URDJAR
LAKE BALKHASH
TURKESTAN
DESERT
CHUGUCHAK
ZAYAN
ARYS
CHIMKENT
CHU
OSH TYUBE
MIRZOYAN
LUGOVTA
CHILIN
DJARKENT
ALMA-ATA
PEAK KHAN TENGRI
CHINA
KIRGHIZ S.S.R.
INDUSTRIES.
Shoe Industry
Chemicals
Machinery
Meat Packing
Synthetic Rubber
Power
Woollens
Textile Industry
Saw Mills
Food Industry
Lead Smelter
Sugar Refinery
Cotton Gin
Copper Industry
Dried Fruit
Tanneries
Flour Industry
City Population —
1 -2 Lacs
50 Thousand-1 Lac

Ab-Siddiq was born two years ago, with no history in the land. Now a nation of two million, educated leaders and machines, some of them women too!

Turkmenia

This republic has an area of 171,250 sq. miles and resembles our Rajputana. It is mostly desert lowlands and "85 % of the territory of the Turkmenian republic will be shown on physical maps as desert, the terrible black sands which even the railway from the Caspian Sea dare not cross but skirts them on the south along the frontiers of Persia till it can hurry north-east to Bokhara and Samarkand" (*N. S. T.*). Most of the people live in the fertile valleys of the Amu-Darya, Tedjen, and Murgav rivers, the shores of the Caspian Sea and the northern foothills of the border mountains.

In the mountainous regions torrential streams rise but on reaching the desert sands loose themselves. The greatest problem that the people have to face is the fruitful utilisation of these waters. Strenuous efforts have been made to construct water systems and, recently, the waters of the great river Amu-Darya have been diverted to irrigate a once completely dried up land. "Already as far as this 100 kilometre canal-river has got, there are reeds and poplars in the deserts. Birds nest in man created oasis. Wheat, cotton and lucerne spring up. Men gather melons and cut salads of vegetables from their desert gardens" (*N. S. T.*). Another interesting feature is the development of 'trench farming.' It has been found that a few feet beneath the surface, the desert soil has sufficient moisture to maintain life and trenches are dug to utilise this moisture. In addition to soil adaptation, desert horticulture is studied in order to find varieties of plants that will thrive in semi-arid areas.

As in other Central Asian republics, exploitation of mineral wealth has played a very important part in the economic development. Sodium sulphate has been found in the Black Maw region and to-day a chemical plant has been erected to convert this salt into utilisable condition; and a new city has arisen based on that. In the Karakum desert itself a sulphur plant has been established. The country is being very rapidly industrialised and large shipyards have been built, at Chardjow on the Amu-Darya and Krasnovodsk on the Caspian. Silk and cotton mills have arisen at Ashkabad.

Development of communications kept pace with the development of industry. There is a 155 mile auto-speed way, the first to be built in the whole of Russia connecting Ashkabad with the sulphur plant in Kharakum desert. New railways, linking Turkmenia with Iran, are under construction. The latest report tells of the beginning of a 1,085 mile line from Chardjow to Gai. Ashkabad is a junction on the highway to India via Iran and Baluchistan.

Culturally, too, the Turkmenians have registered progress. Under the Tzars, only about 7 people out of a thousand could read and write. Now there are over 2½ lakhs of students. There are four universities in Turkmenia and in addition there are 25 technical institutions. There are many workers' clubs and motion picture houses. A national theatre was recently developed and, by 1939, there were eight theatres staging plays.

Kirghizia

This republic is of the size of our Central Provinces or the Punjab.

The trade caravans of antiquity crossed over Kirghizia and, in consequence, conqueror after conqueror was attracted there. Osh in Kirghizia was the native place of Baber who, losing the Ferghana valley to the Uzbecks, crossed over to India and founded the Moghul Empire.

The economic development of this region followed the familiar lines. Firstly, mining has become a very important occupation. In the mountainous region salt, oil, mercury, tin, antimony, lead and gold are mined and even the rare earth, indium, is found here. Tungsten, gallium, niobium are also mined. It is said that of 92 known elements, sixty have so far been discovered in Kirghizia in commercial quantities. But the most important discovery of all was coal. So extensive was the coal found that it is now called, "the stock hole of Central Asia."

Before the exploitation of these resources could be taken in hand, transport facilities had to be provided. Before 1917 no railway existed in Kirghizia. "To-day spurs of the Turk-Sib and Central Asian Railways have been extended into Osh and Djalalabad in the Ferghana valley while a railway from Kant to Ryabachi facilitates the exploitation of coal, lead and zinc, and gives access to Lake Issyk Kul."

Highways have been built, the most important being the great Kirghizian highway, connecting Frunze, the capital of the republic, with Kashgar in China and Osh in southern Kirghizia.

More than 17 hydro-electric stations have been developed, and, based on these, many industries like textiles have developed.

A mercury and antimony combinat has recently begun functioning and is now supplying most of the Soviet Union's war supplies.

From 1938 to 1942, 60,00,000 dollars were spent on industrialisation. In addition to starting new industries, old industries, like the famous silk industry at Osh, were modernised.

Nor is agriculture neglected. New area is being constantly brought under cultivation with the aid of irrigation. New irrigation systems continue to be built, the leading one being the great Chu canal. The work is continuing. "Of 20,000 hectares that will be irrigated for the first time a good portion falls to the share of Chu canal." (*N. & F.*, April 10, 1944). As of old, to-day also Kirghizia is situated along a very important trade route, that of Soviet Union to China.

As the Kirghiz people were till recently nomads, there was no written language. The Soviets gave them the alphabet and by 1939 there were 1,500 elementary schools, 119 high schools, and three universities with over 2,80,000 students. Innumerable books have now been printed in the new alphabet. There are 50 newspapers, 1,350 libraries, 250 picture palaces and over 300 clubs.

The theatre in Kirghizia came to life in about 1932. By 1937 there were over 17 theatres in this "babyish republic," where native musicals have been staged side by side with Shakespeare and Lope de Vaga.

APPENDIX I

ON THE PAMIRS—NINE MILES FROM INDIA

By M. Prishcheta

IT is customary to begin a description of the Soviet Pamir by saying that this is the "roof of the world," that we live at an altitude of from 7,500 to 15,000 feet above sea level, and that during most of the year Mountain Badakhshan is cut off from the mainland and lives in its own exotic world. But today the inhabitants of Mountain Badakhshan are not cut off from the rest of the country for a single day. In Khorog, Rushan, Vanch and other countries of the Pamir, radio receivers, powered by electricity derived from mountain torrents, get broadcasts from every part of our country. These broadcasts are reprinted in the newspaper *Badakhashoni Surkh*, and the news soon reaches the farthest mountain villages.

Before the war, almost the entire economic life of Badakhshan centred around commodities and foodstuffs brought in during the summer, a process which cost the government huge sums of money. During the years of war, however, party and government agencies and the collective farms have been creating their own economy and reducing to the very minimum the so-called "pre-usage" import of commodities. As a result, the Mountain Badakhshan Autonomous Region is producing a considerable proportion of the grain and vegetables it requires.

In 1942, the region exceeded its quota for acreage sown for winter crops by 27 per cent. The collective farms of Badakhshan are now extending the area under spring crops by 2,470 acres. For the dwellers of the high Pamir, accustomed for decades to plant a mere hatful of land, this figure speaks volumes. For example, in order to increase their sown acreage by 500 acres, the collective farmers of Ishkashim country had to dig an irrigation canal seven miles long. To be more exact, they did not dig it, but hewed it out of the mountain cliffs. The course of the canal passes over a huge chasm. This obstacle was overcome by suspending a sluice across it.

Every clod of cultivated soil in the Pamir represents colossal efforts, a vast amount of physical labour, and the overcoming of incredible natural difficulties. For that very reason, the people of the Pamir value their land most highly and strive to wrest from it all that it is capable of producing. Last spring the men and women of the collective farms trucked to their mountain fields or, to be more exact, hauled on their shoulders and in their hands hundreds of tons of natural fertilizer. High school students who are members of the Young Communist League alone gathered a thousand tons of ashes.

The land has repayed its masters handsomely for these efforts. Last year, Shugnan country recorded an average grain yield of 26 bushels per acre. Individual collectives did even better, Ordzhonokidze Farm getting 44 bushels

per acre from its 190 acres and Kalinin Farm taking in 51 bushels on the average, from its 145. In the Vanch country, the collective farm whose chairman is Bibimo Yusupov, a member of the Supreme Soviet of Tadjikistan, succeeded in doubling its grain crop over the preceding year.

Until 1934, the Pamir simply did not know what was meant by a potato. The tubers were first brought in and planted by the Red Army's frontier troops. But to-day this crop is favoured above all others by Pamir farmers. The field gang led by farmer Mirzanobotov of the Stalin Collective has brought in record yields running between 30 to 33 tons per acre, while the researches of the Chichiktin Biological Research Station and the Pamir Botanical Gardens have demonstrated that the markedly continental climate of the high Pamirs and the presence of a high degree of ultra-violet radiation has an extremely favourable effect upon the accumulation of sugar-bearing flour-matter in plants and speeds up the formation of the tubers of the potato.

Our local scientists are helping the collectives to speed the introduction of new crops. The Pamir Botanical Gardens, directed by comrade Gurskii, have, in the period just past, provided the collective farms with 40,000 seedlings of fruit trees, berry bushes and grape vines. Not long ago, this institution undertook to foster strawberry-growing in Badakhshan and now has a rich collection of varieties of this fruit.

Strawberries in the Pamir ! Who would have dreamed of this just fifteen or twenty years ago, when to grow a head of cabbage in these mountains was the acme of the dreams of the boldest agricultural experts of the Pamir ? Not content with these achievements, the Botanical Gardens have worked out a new method of irrigating the porous earth of this area, and this method is now being applied by many collectives.

The battle for water is, in the conditions of the Pamir, synonymous with the battle for the harvest. For this reason, recent years have witnessed a continuous struggle by the peasantry to retain water for purposes of irrigation. But to retain the water means to plant forest belts. Our mountains are not rich in timber, but our collective farmers have been actively correcting this 'omission' of nature. More than 300,000 trees have been planted recently, willow, poplar, ash and maple. Over 180,000 mulberry trees have been planted on the banks of the irrigation canals. Their leaves will provide food for silkworms. In addition to all this, our collective farmers were able, last year, (1942) to carry out successfully the government's plan for increasing the head of all types of live-stock cattle, sheep, goats, and beasts of burden.

Our farmers' love for their country and awareness of the needs of the fighting fronts is visible in a thousand and one deeds, large and small. Our shepherds and farmers find many ways to gain time so as to be able to bring in the valuable deficit minerals to be found in the mountains. Previously it was only geological prospecting expeditions that took any part in this work, but now this sort of mining has become the concern of the entire population.

Since the outbreak of war, the farmers of Mountain

Badakhshan have sent as gifts to the men at the fronts thousands of pieces of warm wear woven from the wool of our mountain sheep. Of stockings alone, 5,000 pair have been sent. They have also sent home-woven fabrics which compare to the factory product in quality. Even the school children, who belong to the Pioneer Organization, have contributed by gathering 15,000 pounds of vitamin bearing sweet brier for our hospitals.

The Pamir is proud of its first city—Khorog. During the war, the city has continued to grow and progress. The second section of the Khorog Hydroelectric Project recently went into operation. The city now has electricity not only for lighting, but for other needs including those of the local industries. Khorog is not only the administrative centre of Badakhshan, but also the centre of its cultural and artistic life. The national theatre has made veritable alpine expeditions over distances of hundreds of miles to bring the questions of the day to the dark corners of the Pamir in militant word and song, thus mobilizing them for the struggle against fascism.

Note: Comrade M. Prishchepa is the Secretary of the Mountain Badakhshan Regional Committee of the Communist Party of Tadjikistan. This article was telephoned to Moscow from Stalinabad, which is only ninety miles from the Afghan border and did not even have railway connection with Moscow before the revolution. It is translated from *Izvestia*, April 24, 1943.

APPENDIX II

ELECTRIC LAMPS ON THE GLACIERS OF THE PAMIRS

By A. Pavlovich

IN these war days, a somewhat unusual enterprise is to be found high up on the snow-clad ridges of the Pamir Mountains. Its shops, if one may call them that, are scattered scores and hundreds of miles from each other. Going from one shop to another and supplying the links of this enterprise with tools and material entails feats of mountaineering over dizzy passes and precarious trails traversing perilous glaciers and climbing almost sheer rocks —and not every person by any means can do it.

The main part of this enterprise is situated at various altitudes ranging from 11,500 to 16,500 ft. A considerable amount of a rare, and highly valuable, industrial raw material has already been extracted here for war needs. This year the Pamir mountain enterprise has considerably enlarged its 'factory grounds' and opened up places where nobody ever thought human beings would ever work.

These mountain ridges and the vast distances between the factory shops, one might think, would cause a lack of contact between the people and render co-ordinated work difficult. This was where radio came in to help. Ten or more radio stations maintain constant touch between all the links of this enterprise, uniting them, to bring them close

together as though they were not scattered far and wide in the mountains but concentrated in one factory yard. Listening how they converse with each other by radio-telephone, you would think that they are plugged in through an ordinary works communication switchboard. It is only the atmospherics and at times the peculiar radio whistle that reminds you that these work-a-day business conversations about pack donkeys needed for delivering freight to such and such a place or requiring the regular monthly book-keeping account to be forwarded are not being flashed from one shop to another by wires but are being sent hurtling through the air, borne on radio-waves across dizzy heights and bottomless gorges.

Some of the shops are located on Peak Cloudy, where the air is rarified to such an extent that a person unaccustomed to such high altitudes has an attack of vertigo and nose-and-ear bleeding.

To ensure even the minimum requirements for normal conditions of work here, everything has to be brought up to these tremendous altitudes—not only equipment but also provisions, firewood and even water. Most of this has to be dragged up on the people's own shoulders, as even sure-footed mountain horses cannot climb the sheer slopes here. It sometimes takes four to five hours to cover one mile on foot.

Work there involves a certain risk of life and it demands courage and fortitude.

Last year, one of the groups were so engrossed in their work that they remained up in the mountains right up to December, when every living thing—from the mountain birds to the nimble mountain goats—had long ago 'evacuated' the mountain peaks, seeking safety from winter's coming invasion. And despite the fierce blizzards and forty degree frosts (C) this group persistently carried on.

An avalanche once buried four workers. It took a long time to dig through the vast mass of snow to the entombed men and there was little hope of rescuing them alive. A few days later, however, the four workers were back on the job, again. They had tunnelled their way out and very soon were able to resume work.

People here are just as accustomed to danger as men at the front and carry on their work with thousands of tons of rock hanging perilously over their heads and vast chasms gaping at their feet.

These men of the Pamirs display true miracles of valour and heroism in order to reach the mountain fastnesses, the rocks of which contain precious raw material, essential for the war industry.

Precariously hanging on ropes, they descend gorges, drill the rocks and place charges of explosive, blasting masses of rock in places where the slightest incautious step is liable to bring down huge falls of rock which have been balanced for untold ages. But without running such risks the production assignment cannot be fulfilled, the raw material so vital for the Red Army will not be forthcoming.

And aware of this, the drillers and charge placers boldly storm the snowy peaks of the towering Pamirs, extracting the precious crystals from the heart of the rocks.

Last year a stroke of good luck fell to the lot of the group whose dogged and persistent efforts were highly rewarded by the government.

Among the best and most successful prospectors for the precious raw material are an old miner Shody and a young graduate of the Mining Institute, N. Kuzmin, who discovered a rich deposit of rare mineral. During the war these mountain prospectors have located several more deposits than were discovered over a period of many pre-war years. Many of these mineral seekers have gone through a stern school of practical training on the snow-clad peaks of the Pamirs.

Working with the men up here in the mountains are women mineral prospectors, too. The physician in attendance is also a woman. For three years in succession, now, she has been giving medical treatment to sick workers and regularly makes her rounds of the 'factory shops,' each round being a difficult feat of mountaineering.

Once, when summoned to an urgent case, Dr. Pilinchuk took a short cut, leading right across a mountain pass which had always been considered impassable. She safely traversed dangerously inclined glaciers, risking death at every step and she reached her patient two days the quicker.

Among this group of people there are some whose bravery and zeal are truly inspiring. Some enthusiasts, headed by electrician Chipurenko, set up the three highest altitude micro-hydrostations in the U. S. S. R.—electric lamps on the glaciers of the Pamirs. These electric stations are fed by mountain rivers and serve to recharge the accumulators of the local radio-stations, thus saving tons of petrol.

The splendid work of the Pamir lorry-drivers earns genuine admiration. For several years, now, they have been driving their lorries up and down the mountains here, without a single accident, carrying supplies for the Pamir enterprise.

Every journey these machines make along the tortuous mountain roads can only be compared with the flight of a plane, with the exception that under the conditions of this terrain the pilot would have a far easier job of it. Thousands of sudden turns and hairpin bends lurk at every yard, deep in inclines hanging sheer over the edge of abysses. There are places where the inside mudguards almost scrape against the rocks while the outside wheels are a couple of inches from the edge of a fifteen-hundred-foot drop. And the drivers at times have to manoeuvre over rockfalls just at a sharp bend, with their heavily loaded machine perilously tilting towards the precipice, like a plane sharply banking in the air.

This is the kind of wartime work being done in the Pamir Mountains. (*I. L.*, Vol. 12, 1943.)

APPENDIX III

POPULATION IN CENTRAL ASIA

Name of Republic	Population in 1939	% increase in 13 years (last census being held in 1926)
Turkmen	1,253,985	25·60
Uzbek	6,282,446	37·60
Tadjik	1,485,091	43·90
Kirghiz	1,459,307	45·70

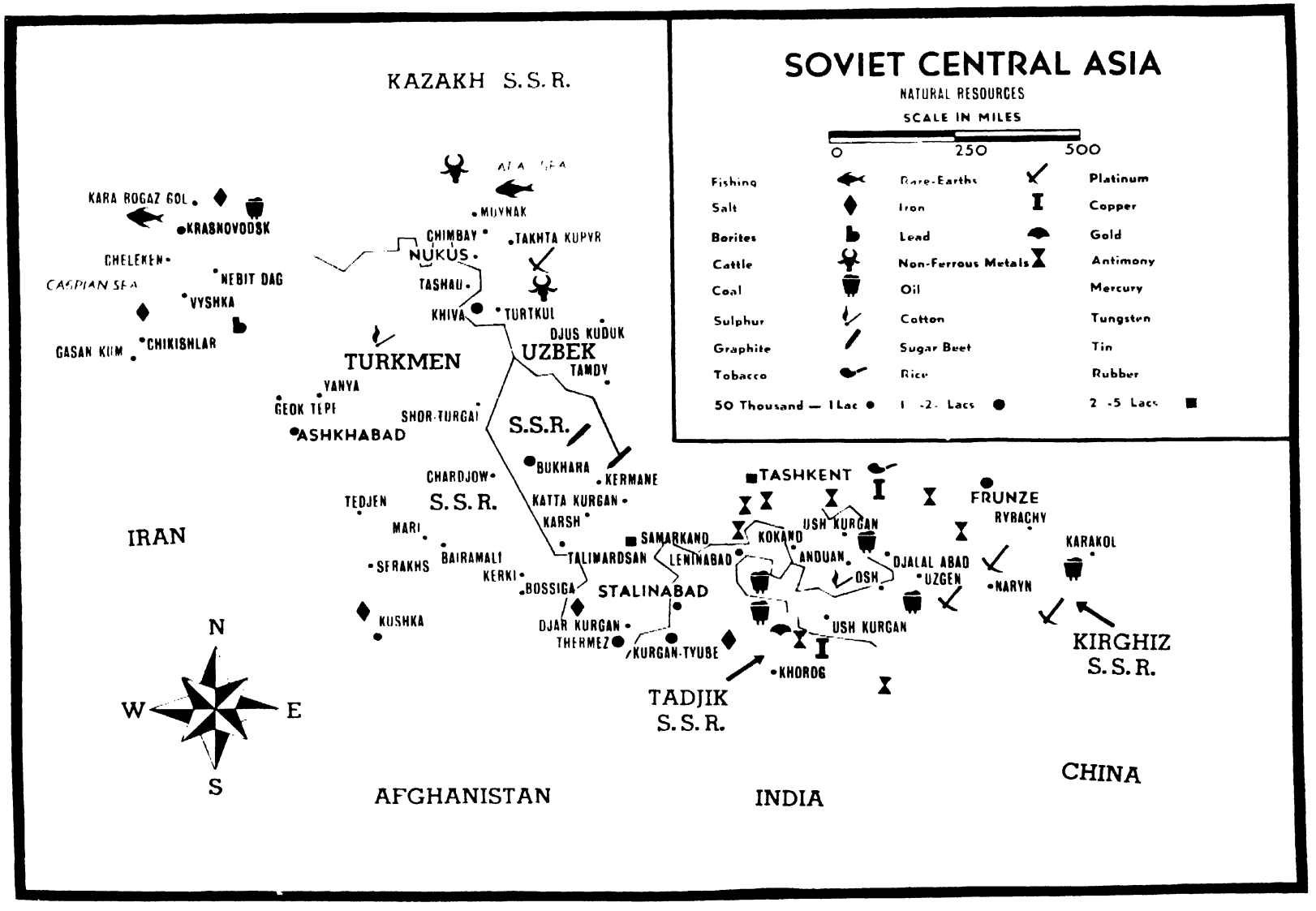
APPENDIX IV

MODERNIZATION OF AGRICULTURE IN THE CENTRAL ASIAN REPUBLICS IN 1938

Name of Republic	1.	2.	3.	4.	5.	6.	7.	% of work done by tractor power: Spring sowing	Grain harvesting	Autumn Ploughing
Uzbek	8,452	99·8	175	79	22,722	1,497	5,969	31	24	84
Tadjik	3,862	99·2	48	19	3,832	82	1,167	15	3	64
Kirghiz	1,849	98·3	63	43	5,128	779	1,984	29	28	35
Turkmen	1,654	99·6	52	27	4,225	175	1,100	48	46	95

Source : Sotsialisticheskoe Selskoe Khosiaistvo Soiuza SSR, Gosplanizdat, Moscow, 1939.

1. Number of Collective farms.
2. Percentage of sown area collectivised.
3. Number of tractor stations serving the collectives.
4. Number of State Farms.
5. Tractors in agriculture.
6. Harvester combines in Agriculture.
7. Trucks in agriculture.


SOVIET CENTRAL ASIA
NATURAL RESOURCES
SCALE IN MILES
0
250
500
Fishing
Salt
Borites
Cattle
Coal
Sulphur
Graphite
Tobacco
Rare-Earths
Iron
Lead
Non-Ferrous Metals
Oil
Cotton
Sugar Beet
Rice
Platinum
Copper
Gold
Antimony
Mercury
Tungsten
Tin
Rubber
50 Thousand — 1 Lac
1 -2- Lacs
2 -5 Lacs
KAZAKH S.S.R.
ARAL SEA
MOYNAK
KARA BOGAZ GOL
KRASNOVODSK
CHELEKEN
CASPIAN SEA
NEBIT DAG
VYSHKA
GASAN KUM
CHIKISHLAR
CHIMBAY
NUKUS
TAKHTA KUPYR
TASHAU
KHIVA
TURTKUL
DJUS KUDUK
TURKMEN
UZBEK
TAMDY
YANYA
GEOK TEPE
SHOR-TURGAI
ASHKHABAD
S.S.R.
BUKHARA
KERMANE
CHARDJOW
S.S.R.
TEDJEN
KATTA KURGAN
KARSH
MARI
IRAN
SERAKHS
BAIRAMALI
TALIMARDSAN
KERKI
BOSSIGA
STALINABAD
KUSHKA
DJAR KURGAN
THERMEZ
KURGAN-TYUBE
TADJIK
S.S.R.
KHOROG
TASHKENT
FRUNZE
RYBACHY
USH KURGAN
SAMARKAND
KOKAND
LENINABAD
ANDIJAN
OSH
DJALAL ABAD
UZGEN
NARYN
KARAKOL
USH KURGAN
KIRGHIZ
S.S.R.
N
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AFGHANISTAN
INDIA
CHINA

Turkmenia : *Land of fierce warriors and fancy head dressers. Now the greatest agriculture centre, where women work shoulder to shoulder with men.*

APPENDIX V

AGRICULTURE IN THE SOVIET FAR EAST IN 1938

I. *Acreage and Livestock.*

Administrative Subdivision	Sown Total	Acreage under Grain	Horses	Livestock		Sheep and Goats
				Cattle	Hogs	
Maritime Terr.	795,825	540,000	64,000	147,200	166,700	29,600
Khabarovsk Terr.	1,452,000	1,115,000	59,700	166,100	111,000	37,700
Irkutsk Oblast	1,839,500	1,635,500	162,700	436,100	181,000	294,400
Chita Oblast	1,480,250	1,357,500	212,700	501,500	137,100	833,100
Buryat Mongol ASSR	966,750	872,000	120,300	382,700	67,900	444,700
Yakut Auton. SSR	251,250	241,000	162,700	392,000	14,000	300

II. *Collectivisation and Mechanisation*

Administrative Subdivisions	No. of Coll. Farms	% collectivised under sown acreage	No. of Machine and Tractor Stations	No. of State Farms (*a*)	Tractors	Combines	Trucks	% of work performed by tractors		
								Sp.	Pl.	Gr.
Maritime Terr.	498	99·1	43	26	2906	959	2151	82	78	(*b*)
Khabarovsk	693	99·7	67	30	4598	2114	869	90	94	(*b*)
Irkutsk Oblast	407	99·8	61	17	3076	832	1465	39	24	82
Chita Oblast	772	99·9	53	12	2465	671	911	33	36	92
Buryat Mongolia	572	99·8	25	3	1248	275	111	28	18	100
Cakutia	1255	88·2	11	2	427	88	1296	(*b*)	5	(*b*)

(*a*) Machine and Tractor Stations are government owned 'garages' which provide agricultural machinery for the use of collective farms in return for a fixed rent payable in agricultural produce. State farms are state-owned and are operated by salaried employees, as distinct from collective farms, which are closely-knit associations of independent farmers who have pooled their land and most of their cattle.

(*b*) No data.

Source: Sotsialisticheskoe Selskoe Khoziaiztvo SSR, Gosplanizdat, Moscow and Leningrad, 1939.

Note: Sp: Spring sowing. Gr: Gr. Harvest. Pl: Ploughing.

APPENDIX VI

RIVER COMMUNICATIONS

THE mighty rivers of Soviet Asia, the Ob, the Yenisei and the Lena flowing north into the Arctic Ocean and the Amur river draining to the Sea of Ohotsk have served as the exclusive channels of communication till recently from north to south. The Russian conquerors spread up and down the rivers and the line of conquest followed river basins.

Because the Ob, the Yenisei and the Lena flowed into the Arctic which was frozen for over nine months in the year the rivers remained un-navigable at the mouths while the upper reaches served as channels of communication. Now, however, a regular service has been established in the Arctic Ocean itself. The ice-breakers convoy regularly boats from Archangel and Murmansk to the Kara Sea and further to the east and bring ships to the mouths of the Ob, the Yenisei and the Lena. The opening up of the North Sea has meant automatically the opening up of the Lower Reaches of these rivers also.

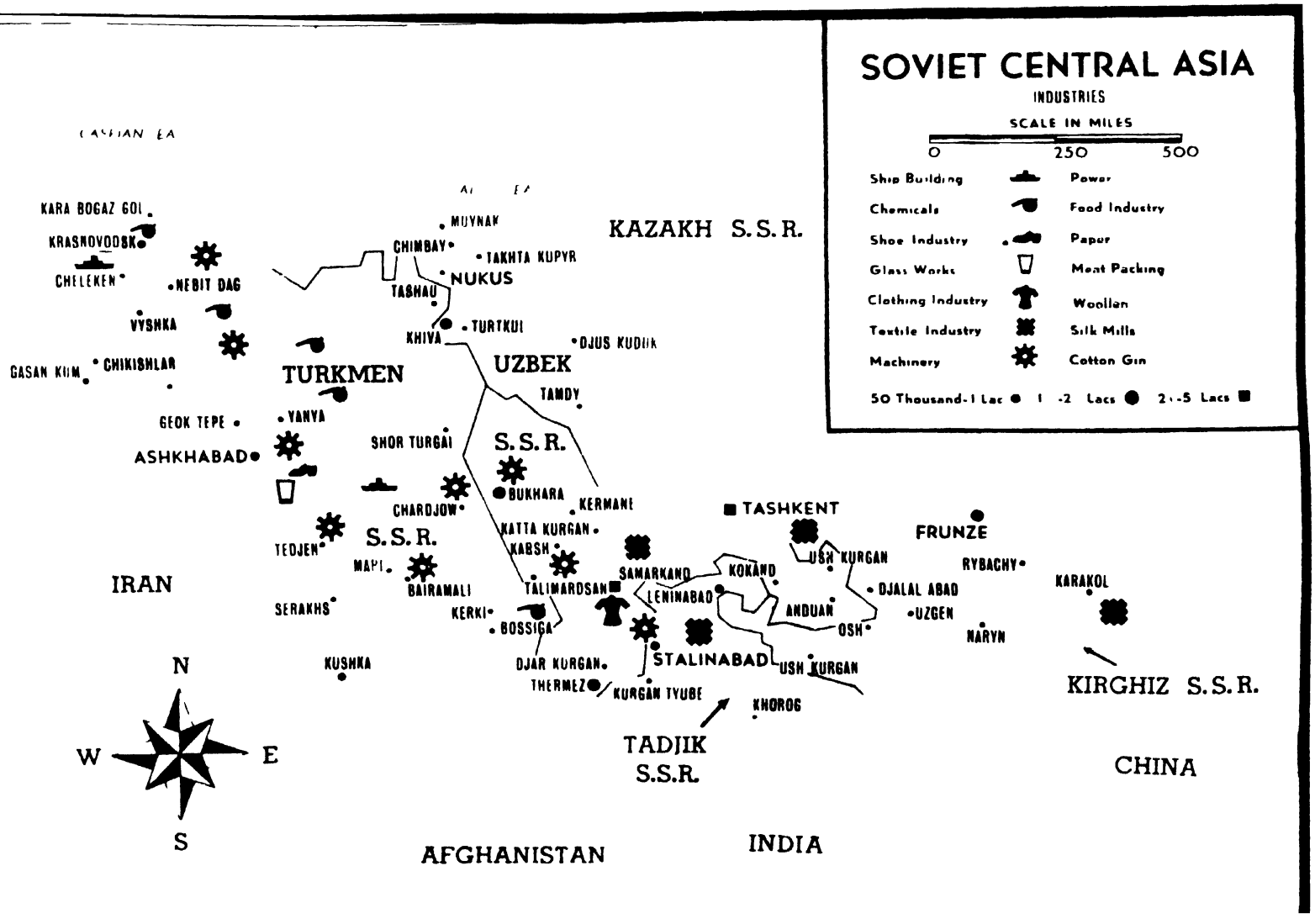
The Ob with its important tributary, the Irtysh, leads to the Altai area and thence to Western China passing through Kazakhstan and river boats can convey cargo from the Arctic to Western China.

The Yenisei, on the other hand, leads to the borders of Mongolia. Steamers from Archangel and Murmansk unload goods at ports at the mouths of these two river systems and goods can be passed to China entirely through river channels when river communications are fully developed. Part of the way is already in regular use. The port of Igarka on the Yenisei has led to the development of the whole of northern and central portion.

The Lena River system with tributaries of Aldan and Vilui rivers provides 6,250 miles of navigable water ways. On the Aldan river mouth is Tiksii Bay where steamers from Archangel and Murmansk dock regularly, having voyaged through the Arctic and unload the goods to river plying boats. Tiksii Bay has become a very important centre of communications connecting the sea way to the inland water way. By this means Yakutia in the heart of Siberia has developed an outlet into the sea.

The main ports in the Arctic, Dickson Island, Kozhevnikov Bay, Tiksii Bay, Ambarchik, Providence Bay—have been fully mechanised to speed up the loading and unloading of the ships and corresponding improvements have been made along the river systems. "As a result of the new measures in coaling, docking and delivery, the freight turn-over has risen immensely, as much as 2,700% for instance along the Kolyma river." (S.A.)

In the Far East, the Amur river is the nerve centre of communications. The Amur draining into the warmer regions of the Pacific is ice-free almost throughout the year and it was the quest of warmer regions that has drawn the Russians to this area. Till the completion of the Trans-


SOVIET CENTRAL ASIA
INDUSTRIES
SCALE IN MILES
0
250
500
Ship Building
Power
Chemicals
Food Industry
Shoe Industry
Paper
Glass Works
Meat Packing
Clothing Industry
Woollen
Textile Industry
Silk Mills
Machinery
Cotton Gin
50 Thousand-1 Lac
1 -2 Lacs
2 -5 Lacs
CASPIAN SEA
KARA BOGAZ GOL
KRASNOVODSK
CHELEKEN
NEBIT DAG
VYSHKA
GASAN KUM
CHIKISHLAR
GEOK TEPE
YANYA
ASHKHABAD
TEDJEN
MAPI
BAIRAMALI
SERAKHS
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MUYNAK
CHIMBAY
TAKHTA KUPYR
NUKUS
TASHAU
KHIVA
TURTKUL
DJUS KUDUK
KAZAKH S.S.R.
TURKMEN
S.S.R.
UZBEK
S.S.R.
TAMDY
SHOR TURGAI
CHARDJOW
BUKHARA
KERMANE
KATTA KURGAN
KABSH
TALIMARDSAN
KERKI
BOSSIGA
DJAR KURGAN
THERMEZ
KURGAN TYUBE
TASHKENT
SAMARKAND
KOKAND
LENINABAD
ANDIJAN
OSH
STALINABAD
USH KURGAN
KHOROG
TADJIK
S.S.R.
INDIA
FRUNZE
USH KURGAN
DJALAL ABAD
UZGEN
RYBACHY
KARAKOL
NARYN
KIRGHIZ S.S.R.
CHINA

Kirgizia : *Pastorali coperti : l'amore tra la cavalleria e il sacrificio per la patria e per la donna.*

Siberian Railway this provided the only means of communication with its important tributary, the Ussuri, which provides 3,150 miles of navigable river system. On the Ussuri has risen the new port Komsomolsk.

The utilisation of River Transport from north to south, though tremendously improved recently, is of immemorial origin. A vaster and ambitious scheme has now been conceived. This is to connect, by the construction of linking up canals, the rivers Kama, Tura, Tobol, Irtysh, Ob, Yenisei and—through the lower reaches of the Tunguska—the River Lena. From one end of Siberia to the other end ships can then travel and provide an alternate route to the Trans-Siberian Railway system.

APPENDIX VII

PLANNING—THE SOVIET WAY

"A Five-Year Plan is built not only from the top but the bottom up. The broad general outlines of a Plan are of course decided by the government. Once these are worked out, the State Planning Commission is instructed to prepare estimates for each industry—how much coal, oil, iron, steel is to be produced, how much wheat, cotton, fruit, food grown, how many factories to be built and what new facilities are to be added to the educational, recreational, and public health systems."

"Once the Planning Commission has finished this really stupendous task, its estimates for production are submitted to each of the industries, and eventually find their way down to each single factory and to each division of each factory, or to individual collective farms. Meetings are called of all the workers in the factory or farm, office workers included."

"In each place of work a committee is elected to go over the part of the plan which concerns their type of production, with the problem of their particular plant in mind, and to submit to the meeting an estimate of what, in the opinion of this committee, can be produced by this estimate, discuss it, criticise it, and revise it. And the workers are really effective in meetings of this type. Accustomed to participating in factory management, they know exactly what the problems are and have ideas for meeting them. They have a fairly accurate idea of how much they can produce. Frequently, they return to the Government Planning Commission a revised plan in which they have agreed to produce more than the original called for. Perhaps their chief fault lies in the fact that they are inclined to be over-enthusiastic. Often their estimates have to be scaled down, due to a lack in necessary raw materials or equipment. Nevertheless, it must be kept in mind that each worker and farmer has a real share in the planning process. That is doubtless a primary reason why the plans have achieved so much." (*L. O. S.*).

APPENDIX VIII

STALIN'S CHARTER FOR POST-WAR RUSSIA

POD· Zunenem Marksizma (*Under the Marxism Banner*), a Russian journal of repute which deals with problems of economic and philosophical importance published some time ago an extremely informative article under the modest title 'Some Questions on the Teaching of Political Economy'. It contains, however, a detailed plan of future economic policy for the Soviet which can aptly be called Stalin's Charter for Post-war Russia. This article was quoted extensively in American periodicals like *New York Times*, *America* and others in July 1944.

The article treats in detail a number of most important formulations of policy, and guidance regarding the most basic problems of political economy given to Soviet economic theoreticians some time after 1939 by the Central Committee of the All-Union Communist Party. This body, the highest political authority in the Soviet Union, is headed by Marshal Stalin, who is credited with being the author of the plan laying down the new policy. He emphasises that Russia's task, imposed by objective necessity, has been to catch up with and surpass the advanced capitalist countries, industrially and technically. After Russia's security has been assured by victory in the war, the task must be taken up anew.

Russia's Post-war Tasks

Apart from provision for social needs the Soviet State must, in Stalin's view, accomplish great undertakings after the war. A social reserve fund must be built up to provide for insurance against accidents, natural calamities and so on. A fund of accumulation must also be built up to provide for expansion of production by continued addition to Russian plants of new means of production. Also, the Russian economy must provide a further surplus for a gigantic work of construction in the U.S.S.R. The latter is only possible by the building up of Russia technologically.

The Russian leaders realise that the advanced capitalist countries have gone through the industrial revolution and now are at the dawn of a new epoch in their development, the technological revolution. In the former epoch, the universal fuels, the coals, and the heavy industries, like steel, were the basic industries. In the present one, hydropower, distributed widely over national regions by central grid system, is the basic fuel and the chemical and engineering industries are the basic industries. Despite determined effort, Russia had not caught up with the advanced capitalist countries in industrialisation when the war broke out, and now she has to catch up with them technologically.

To achieve these tasks, it is clear, Russian State Socialism must require that the Russian people produce not only enough for their needs, but, as the economists say, increasing surpluses to make possible the achievement of these economic goals. The Russian leaders do not expect to bring this about single-handed, this colossal and active

changing of conditions, which are a legacy from the past.

They intended to continue Soviet Russia as a 'closed economy' that is, one sealed off from crises produced by competition in the world economy, by means of their state foreign trade monopoly and its exchange and export and import controls. This, they say, is an imperative need of socialist economy. But they intend to take advantage in a large way of the international division of labour, under which capitalism has made its greatest economic advances, to build up their economy.

Because of the lack of exchange-resources, inflation and the over-hasty repudiation of the old regime's debts, Russia was obliged in the 'twenties' and early 'thirties' to pursue a policy that was virtually self-sufficient. As her exchange resources permitted, however, she gradually abandoned this policy. Now she intends to take as large a part in the world market as her surplus production permits ; in the past the Soviet Union has always pursued the most conservative financial policies, never buying more than it could easily pay for. Throughout, the need for surplus production is emphasised.

The Russian economists realise that participation on such a scale in the world market exposes the socialist economy to all the dangers that the capitalist economies face —"an innumerable magnitude of deviations", catastrophes, cataclysms. The objective necessity by which socialist society develops, they note in a highly theoretical section, is conditioned by "all the external and internal circumstances".

To guard against this, they rely on several devices. By maintaining 'tremendous' reserves of commodities, they hope to have protection against monopolistic squeezes. By establishing new industries by subsidy, industries which may operate at a loss at first and which need never achieve a profitable basis, they hope to have a fundamental diversification corresponding in some way to Russia's richly diversified natural resources.

But all this, they realise, presupposes greater industrial output in Russia, which means that the country must achieve much more highly efficient production. Drawing the obvious conclusions from this, they set out that Russia must have more efficient management and higher labour productivity.